EFFECTIVENESS OF SELECTIVE NURSING MEASURES AMONG CHILDRN WITH ATTENTION DEFICIT HYPERACTIVE DISORDER AT ANNAI ILLAM, MELMARUVATHUR.

By

Ms. CHITRA.C

A Dissertation submitted to

THE TAMILNADU Dr.M.G.R MEDICAL UNIVERSITY,

CHENNAI

IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE DEGREE OF MASTER OF SCIENCE IN NURSING

SEPTEMBER – 2014

CERTIFICATE

This is to certify that **"EFFECTIVENESS OF SELECTIVE NURSING MEASURES AMONG CHILDRN WITH ATTENTION DEFICIT HYPERACTIVE DISORDER AT ANNAI ILLAM, MELMARUVATHUR."** is a bonafide work done by **Ms. CHITRA.C., M.Sc.(Nursing) II Year Student,** Adhiparasakathi College of Nursing, Melmaruvathur, in partial fulfillment of **THE TAMIL NADU Dr.M.G.R MEDICAL UNIVERSITY** rules and regulations towards the award of the degree of **Master of science in Nursing, Branch-II, Child Health Nursing,** under my guidance and supervision during the academic year 2012- 2014.

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CHAPTER –I

INTRODUCTION

Today's children are tomorrow's responsible citizens of the world. There is a great to emphasize on children these days because a very substantial proportion of the world's population i.e. 27% constitutes young children. The future of our country depends on positive mental health of our young people. Children are the treasures and bring forth into this world, but too large a percentage of the population continues to care them as inconveniences and treating them as possessions or toys.

The Centres for **Disease Control and Prevention's National Health and Nutrition Examination Survey (2013)** concludes that prevalence of mental illness for children ages from 8 to 15 years. This survey shows that approximately 13 percent of children ages from 8 to 15 had a diagnosable mental disorder. The most common disorder among this age group is attention deficit hyperactivity disorder, which affects 8.5 percent of this population.

According to **National census (2011)** in Tamil Nadu, the total number of child population was 68, 94,821. In that 35, 42,351 was boys and 33, 52,470 was girls. So totally 9.56 Percentage of population was children.

University of Illinois Board (2011) states that school-age children have smooth and strong motor skills, however their coordination, endurance, balance, and physical abilities vary. They are very active with lots of energy. Their fine motor skills have become much better. They have a strong need to

feel accepted and worthwhile. They prefer individual achievements over competition. They like encouragement and suggestions over competition.

World health organization (2011) indicates that by 2020 childhood neuropsychiatric disorders will rise proportionally by 50% and be the fifth most common causes of morbidity, mortality and disability among children. However nearly one in five children and adolescents has emotional and behavioural disorder at some point of time in their young lives regardless of their geographic region or socioeconomic status.

Childhood and psychiatric disorders remain prevalent around the globe with median prevalence estimates of around 12%. It is generally noted that in developing countries more and more children are brought into the school system, but at the same time every section of the school is likely to have around 15-20% of the students who are not able to maintain satisfactory collateral progress. Hence there is a need to deal with behavioural problem at an earlier stage.

The term Attention deficit hyperactive disorder was adapted by **American psychiatric association (1994).** It is a syndrome, first described by Heinrich Holf in 1854 since then it has been known by variety of names like minimal brain dysfunction, Hyperkinetic syndrome, Strauss syndrome, organic drivenness and minimal brain damage. Attention deficit hyperactive disorder (ADHD) is an important psychiatric disability and is well characterized on the

diagnostic and statistical manual of disorders (DSM-IV) and international classification of disease (ICD-10) criteria of psychiatric disorders.

Attention deficit hyperactive disorder and hyperkinetic disorder are based on maladaptive high levels of Impulsivity, Hyperactivity and Inattention. They are all based on observations about how children behave: 'Impulsivity' signifies premature and thoughtless actions; 'Hyperactivity' a restless and shifting excess of movement; and 'Inattention' is a disorganised style preventing sustained effort. All are shown by individual children to different extents, and are influenced by context as well as by the constitution of the person.

The prevalence of Attention deficit hyperactive disorder in India is about 4-20% school age children and it is more frequent in boys than girls. Males are 6-8% more often affected. The onset occurs before the age of seven years and a large majority of patients exhibit symptom by four years of age. Prevalent rates are higher at the twelve years of age. Attention deficit hyperactive disorder affects school performance and interpersonal relationship.

According to **IAP textbook of paediatrics** the incidence of Attention deficit hyperactive disorders are highest among all development disabilities (75/1000). Difficulties associated with Attention deficit hyperactive disorder are most commonly school related or academic. Common problems associated

with Attention deficit hyperactive disorder are non-compliance behaviours, sleep disturbance, aggression, temper tantrum and other learning problems. Mild forms need not be impairing at all. Extreme forms are considered to be harmful to the individual's development in most cultures, but there are cultural differences in the level of activity and inattention that is regarded as a problem .While both teachers and parents can find it hard to deal with or live with a hyperactive child, their tolerance and ability to cope may determine whether the hyperactivity is presented as a problem.

Everyday five days a week, children spend most of the time in classroom or school setting. There they are expected to follow rules, behave in socially appropriate ways, participate in social activities and not disrupt the learning process or activities of others. Teachers have to see that the skills and knowledge that form part of the curriculum become part of the learner's own competence and teach the learners to behave in a manner that meets the organizational, cultural and social expectations. The works of the teacher are much more demanding when the learners have Attention deficit hyperactive disorder, as their problems with attention span, impulse control, and activity level frequently interfere with activities in the classroom academically and socially.

National Institute of Mental Health collaborative (2011) multisite multimodal treatment study of children with attention deficit hyperactive disorder included four treatment groups such as medication management, intensive, a combination of the two interventions and a community treatment

control group who received “usual care”. The outcomes were assessed on multiple domains and included measures reflecting the core symptoms of Attention deficit hyperactive disorder as well as measures of co-occurring problems in social skills, parent child relations, oppositional defiant behaviour, internalizing behaviour problems and academic achievement. The study results consistently greater benefit to the combined treatment group of medical management and intensive behavioural intervention.

NEED FOR THE STUDY

Adams & Sutker (2009) declare that in The United States, one of the most common reasons children are referred to mental health clinics for diagnosis and treatment of attention deficit hyperactive disorder. Children referred for Attention deficit hyperactive disorder account for 50% of all referrals to outpatient mental health clinics. Worldwide population of children younger than 15years is 1.8billion that is 28% of world population.

Hamilton (2011) reveals that the prevalence rates of the condition are in fact increasing, as the percentage of children in the USA, ranging from ages 5-17, who were diagnosed with Attention deficit hyperactive disorder increased from 7% to 9% between the years 1998- 2009.

Zametkin and Ernst (1999) reported that Attention deficit hyperactive disorder is a frequently occurring disorder, with 3 symptoms pervading more often in boys than in girls.

Snyman (2010) in his recent research reveals that Attention deficit hyperactive disorder is in fact the most persistent and commonly occurring condition affecting South African children today, with 8% to 10% of children receiving this diagnosis.

In India explorated prevalence of Attention deficit hyperactive disorder is about 12,921,812. One- to two-thirds of all children with Attention deficit hyperactive disorder, continue to have symptoms when they grow up. A diagnosis can be controversial, since there are no lab tests for Attention deficit hyperactive disorder, and no objective way to measure a child's behaviour. There is no best way to treat Attention deficit hyperactive disorder; however, experts agree that taking action early can improve a child's educational and social development. The 21st century promises remarkable progress that will no doubt alter the way people view, diagnose, and treat Attention deficit hyperactive disorder. Our understanding of genetics is growing by leaps and bounds and impressive developments in technology will produce more discoveries by offering a window into the brain. We are now more likely to discuss nursing way for Attention deficit hyperactive disorder.

Mukhopadhyay and Misra (2009) conducted a study on Attention deficit hyperactive children in the age group five to twelve years-12 years in a child guidance clinic at a paediatric hospital was found to be 15.5%. The male to female ratio was 6.4:1.

Lee (2008) reported that student's socioeconomic background also contributes to Attention deficit hyperactive disorder. Based on the findings of the study, students from low income or single parent families, or families where both parents work, show a higher rate of ADHD than students from high income, two-parent families.

Moore, DePaul and White (2006) argued that the major contributive factors to Attention deficit hyperactive disorder are genetic and organizational factors: The brains of those with Attention deficit hyperactive disorder may differ with respect to the balance of certain chemicals, referred to as neurotransmitters, as well as the size and operation of specific brain components, such as the prefrontal cortex. Also, the nature of classroom tasks and behaviour management styles at home and school could affect the expression of Attention deficit hyperactive disorder.

Multidisciplinary teams composed of physicians, psychiatrists, psychologists, psychiatric and paediatric nurse, educators, teachers, parents or tutors, neurologists, and neuropsychologists will always be an important part of the work. This type of team will provide tailored organization of long-term treatments through cognitive and behavioural therapies combined with medication. Moreover, it is important:

- **Armstrong (2001)** states that creating awareness among parents, tutors, or teachers through training workshops on Attention deficit hyperactive

disorder, and different educational intervention methods used in school and at home is the foremost intervention.

- **Reynolds and Kamphaus (1994)** pronounces that providing practical training to get accustomed to compiling specific information on children with Attention deficit hyperactive disorder behaviours assessment protocols or scales administered by clinicians.
- **Caron (2006)** says that to improve symptoms of maladjustment in children with Attention deficit hyperactive disorder problem-solving and emotional management training are effective.
- **Lavigueur (2002)** proposes that by increasing the number of playful and sport activities and to restructure the school and home atmosphere in which the child is developing.
- According to American Academy of Paediatrics recommendations leaving young children aged 2 years old or less watching television, playing computer or video games without any supervision is inappropriate.

Anne Teeter Ellison (2013) identified medication management guidelines that increase the likelihood that optimal Attention deficit hyperactive disorder symptom reduction will be achieved and maintained. Notably, once stimulant treatment is no longer provided by research clinicians, the relative benefits of medication compared to behavioural treatment begin to diminish and are no longer present after two years. This study emphasized the importance of implementing strategies to sustain clinical gains following the completion of intensive treatment, be it pharmacotherapy or behaviour therapy.

World health organization (2009) revealed that when the diet of a group of children with Attention deficit hyperactive disorder was altered, 62% of the children showed significant improvement regarding their symptoms. Several reasonable studies of long-chain polyunsaturated fatty acids show modest positive effects. A third advance is the accumulation of controlled studies suggesting sensitivity to food dyes and preservatives; the effect was modest, the fact that it applies to the whole population gives it enough public health import to justify negotiations to get artificial dyes out of edibles intended for children.

MANNUZA(2013) state that long-term progress or outcome of children with Attention deficit hyperactive disorder has drawn considerable attention, partly because of high prevalence, and partly because a significant minority of children with Attention deficit hyperactive disorder become known to the criminal justice system in adolescence or young adulthood, thus constituting a major public health concern. As a group, these individuals continue to exhibit significant deficits in the academic and social domains.

Half of the children with Attention deficit hyperactive disorder continue to experience disruptive or distressing symptoms. Nearly a third fulfils criteria for an antisocial disorder, and two-thirds become known to the criminal justice system. So there is a need to improve the behavioural pattern of the children in the earliest. Hence the investigator has chosen this study to assess the effectiveness of selective nursing measures among children with

Attention deficit hyperactive disorder.

STATEMENT OF THE PROBLEM

"EFFECTIVENESS OF SELECTIVE NURSING MEASURES AMONG CHILDREN WITH ATTENTION DEFICIT HYPERACTIVE DISORDER AT ANNAI ILLAM, MELMARUVATHUR"

OBJECTIVES OF THE STUDY

1. to assess the behavioural pattern of the children with Attention deficit hyperactive disorder by using Conners' parent rating scale.
2. to determine the effectiveness of selective nursing measures among children with Attention deficit hyperactive disorder.
3. to find out the association between the effectiveness of selective nursing measures with demographic variables among children with Attention deficit hyperactive disorder

OPERATIONAL DEFINITIONS

EFFECTIVENESS

The degrees to which objectives are achieved and the extent to which targeted problems are solved.

SELECTIVE NURSING MEASURES

Selective nursing measures refers to teaching parents, diet modification, breathing exercise, massage therapy, sensory integration and motor activities, reinforcement and time out techniques.

- **Teaching parents**

  It refers to educating parents in concern to multimodal management of Attention deficit hyperactive disorder, coping strategies, preventing the complications and follow up.

- **Diet modification**

  It refers to providing information regarding initiation of special diet and elimination of food additives.

- **Deep breathing exercise**

  It is the process of breathing deeply focusing on the abdomen rather than the chest and fall more dramatically with each inhalation and exhalation.

- **Massage therapy**

  Massage refers to the manipulation of superficial layers of muscle and connective tissues to enhance their function and promote relaxation and well-being.

- **Sensory integration and motor activities**

  It is dynamic and fun for the child. The setting is safe and provides the child with the opportunity to explore appealing pieces of equipment: platforms to swing on, barrels to climb through, trapezes to swing from, and big blocks to climb over etc.

- **Reinforcement**

It is the process of encouraging or establishing a belief or pattern of behaviour.

- **Time out technique**

The time out refers to immediately isolating the child for a short period of time in which they are endangered or endangering others.

ATTENTION DEFICIT HYPERACTIVE DISORDER

It is a disorder that manifests in early childhood with symptoms of hyperactivity, impulsivity and inattention. The symptoms affect cognitive, academic, behavioural, emotional, and social functioning.

CHILDREN

It refers to 7 to 13 years of children at Annai Illam.

ASSUMPTIONS

- There will be an improvement in behaviour pattern among the children with Attention deficit hyperactive disorder
- The parents may gain knowledge concern to Attention deficit hyperactive disorder and develop optimum strategies to cope up with their child's behaviour.

HYPOTHESIS

Research hypothesis states that there is a significant relationship between the selective nursing measures and improvement of behavioural status among children with Attention deficit hyperactive disorder

DELIMITATIONS

- Data collection period was delimited to six weeks.
- The study was delimited to children at Annai Illam, Melmaruvathur, Kanchipuram district.
- The age group of the participants was between 7 and 13 years.

PROJECTED OUTCOME

This study would help to assess the effectiveness of selective nursing measures among children with Attention deficit hyperactive disorder. The findings of the study would help the parents to care their child efficiently, guide the children to regulate their behaviour and improve their daily functions.

CONCEPTUAL FRAMEWORK

Conceptual framework provides clear description of variables suggesting ways or methods to conduct the study and guiding the interpretation, evaluation and integration of study findings**.**

Wood and Helper (1994) states that, “when conducting research a theoretical frame work serves as a guide of map to systematically identify a logical and precisely defined relationship between the variables”.

A conceptual framework refers to concepts or structure; offer framework to prepositions for conducting research, the study design is to elicit the effectiveness of selective nursing measures among children with Attention deficit hyperactive disorder.

The Health Promotion Model is a competence or approach oriented model that depicts the multidimensional nature of persons interacting with their concepts applied to physical environments. The investigator applied health promotion model to assess the effectiveness of selective nursing measures among children with Attention deficit hyperactive disorder.

The Health Promotion Model developed by N.J.Pender, C.L.Murdaugh and M.A.,Pearsons (2002), focused on three dimensions like individual characteristics and experiences, behavioural specific cognition and affect and the behavioural outcome.

INDIVIDUAL CHARACTERISTICS AND EXPERIENCES

It is unique personal factors or characteristics and experiences which depend on target behaviour for health promotion. In this study the pre-test which includes the demographic variables and assessment of behavioural pattern among children with Attention deficit hyperactive disorder using conner's parent rating scale.

BEHAVIOURAL SPECIFIC COGNITION AND AFFECT

This set of variables is considered to be at major motivational significance for acquiring and maintaining health promoting behaviour.

Perceived benefits of action

Anticipated benefits or outcomes affect the woman plan to participate in health promoting behaviour may facilitate the practice. In this study, improvement in behavioural status of the children is the perceived benefits of action.

Perceived barriers to action

It affects health promoting behaviour by decreasing the individual commitment to a plan of action. In this study lack of knowledge of parents regarding behavioural intervention and diet modification are the perceived barriers to action.

Perceived self-efficiency

It means people who have serious doubts about their capability. In this study the perceived self-efficiency are the selective nursing measures such as teaching parents, diet modification, breathing exercise, massage therapy, sensory integration and motor activities, reinforcement and time out techniques.

Activity related affect

The subjective feelings that occur belong during follow and action can influence whether the person with repeat the behaviour again or maintain. In this study it refers to the researcher motivation to involve the parents and in selective nursing measures.

Situational influences

It refers to the direct and indirect factors that influence the health promotion behaviour. In this study situational influences are family monthly income, birth order, dietary pattern, type of ADHD that exist, duration of illness and usage of medications for Attention deficit hyperactive disorder.

Commitment to a plan of action

Commitment to a plan of action involves two process, commitment and identifying specific strategies for carrying out reinforcing behaviour. In this study it refers to selective nursing measures.

BEHAVIOURAL OUTCOMES

The outcome of the Health Promotion Model is directed towards obtaining positive health outcomes. In this study in refers to the post-test, improvement in the behavioural outcome among children with Attention deficit hyperactive disorder.

CHAPTER II

REVIEW OF LITERATURE

This chapter focuses on the preparation of written reviews as a critical component of an original research study, although most of the activities are similar for other types of review. A literature review helps to lay the foundation and provide context for a new study.

Review of Literature has been categorized into two parts.

PART A: LITERATURE RELATED TO ATTENTION DEFICIT HYPERACTIVE DISORDER.

PART B: LITERATURE REVIEW RELATED TO SELECTIVE NURSING MEASURES

SECTION A: Literature review related to parents teaching

SECTION B: Literature review related to diet modification

SECTION C: Literature review related to breathing exercise and massage therapy

SECTION D: Literature review related to sensory integration and motor activities

SECTION E: Literature review related to reinforcement

SECTION F: Literature review related to time out technique

PART A: LITERATURE RELATED TO ATTENTION DEFICIT HYPERACTIVE DISORDER.

Wankerl. B, et al (2014) postulates the monoamine deficit and Attention deficit hyperactive disorder. It is a dysbalance in the interaction of the neurotransmitters such as dopamine, noradrenalin and serotonin. Pathophysiological mechanisms involved in Attention deficit hyperactive disorder include alterations in fronto-striatal circuits. This study provides an evidence points to a genetic basis for Attention deficit hyperactive disorder which is likely to involve many genes of small individual effects.

Garbe.E, et al (2013) conducted a twin studies to assess the contribution of genetic factors to the aetiology of Attention deficit hyperactive disorder. This study consists of data from four statutory health insurances, around 17% of the total population of Germany. Among those insured in 2005, they identified 286,653 non-twin sibling pairs and 12,486 twin pairs. Each pair consisted of an index child of 6 to 12 years old and a co-sibling of equal age or up to five years older. Attention deficit hyperactivity disorder cases were identified by hospital or ambulatory ICD-10 diagnoses (F90.0 or F90.1) and prescriptions. This study clearly reproduced the strong genetic component and twin study in the aetiology of Attention deficit hyperactivity disorder.

Sukasem.C, et al (2013) highlights the importance of pharmacogenetic testing in the treatment of Attention deficit hyperactive disorder. A six year old boy diagnosed with Attention deficit hyperactive disorder was prescribed

methylphenidate 5 mg twice daily at 7 am and at noon. The family was compliant with administration of this medication. The Pharmacogenetics for Antipsychotics test for CYP2D6, CYP2C19 and CYP2C9 was performed using microarray-based and real time polymerase chain reaction techniques. Consequently, the physician adjusted the methylphenidate dose to 2.5 mg once daily in the morning. At this dosage, the child had a good response without any further adverse reactions. This study concludes that Pharmacogenetics testing should be included in the management plan.

Ramos.R, et al (2013) investigated the type of Attention deficit hyperactive disorder and cognitive status in preschool children. The study population was drawn from three birth cohorts belonging to the Spanish projects. This study reveals that children with both inattention and hyperactivity symptoms showed significantly lower cognitive function.

Adelaide.R, et al (2013) in their study proposed that young children with attention deficit hyperactive disorder have difficulties which include learning disabilities of 15-20%, oppositional defiant disorder of 40% and conduct disorder of 14-20%. One of the most common disorders is substance use disorder which occurs in 13-21% of teenagers and adults. This study reveals the complications of Attention deficit hyperactive disorder,

Aragam.N, et al (2012) investigated parent of origin effects using a genome-wide association analysis of the International

multicentre genetics study using 846 Attention deficit hyperactive disorder and parent of origin effects were studied using a Z score for the difference in paternal versus maternal odds ratios. We identified 44 single nucleotide polymorphisms showing parent-of-origin effects at a significance level of $p < 0.001$. This study result suggests the parent of origin effects the risk factor for Attention deficit hyperactive disorder.

Grossman.B, et al (2012) conducted a cohort study to examine the independent and synergistic effects of gestational diabetes mellitus and low socioeconomic status on neurodevelopment and attention-deficit hyperactive disorder outcomes on 212 preschool children. Primary outcomes are based on Diagnostic and Statistical Manual of Mental Disorders criteria at age six years and neurobehavioral outcomes based on cognitive functioning, Attention deficit hyperactive disorder symptoms, and temperament at age four years. This study reveals that Attention deficit hyperactive disorder is increased when children were exposed to both gestational diabetes mellitus and low socioeconomic status.

Eme.R (2012) examined that Attention deficit hyperactive disorder is a common sequel of paediatric traumatic brain injury. The review contends that this symptoms caused by paediatric traumatic brain injury, such as slow processing speed, emotional deregulation and disinhibition, are indicative of Attention deficit hyperactive disorder. The study concludes that following paediatric traumatic brain injury is even more common than the 30% and

provides recommendations for the assessment and treatment of Attention deficit hyperactive disorder associated with paediatric traumatic brain injury.

National Survey of Children's Health (2011) reported prevalence of Attention deficit hyperactive disorder in children varies from 2 to 18 percent depending upon the diagnostic criteria and the population studied. The prevalence in school-age children is estimated between 8 and 10 percent. The prevalence of a parent-reported diagnosis of Attention deficit hyperactive disorder among children aged 4 to 17 years of age in the United States was estimated to be 11 percent. Attention deficit hyperactive disorder is more common in boys than girls (male to female ratio 4:1 for the predominantly hyperactive type and 2:1 for the predominantly inattentive type). The prevalence was 15.1 percent in boys and 6.7 percent in girls. The prevalence of Attention deficit hyperactive disorder increased with increasing age 7.7 percent in four to ten year old children; 14.3 percent among eleven to fourteen year old; and 14.0 percent in fifteen to seventeen year old. Among those with current Attention deficit hyperactive disorder, 69 percent were being treated with medication at the time of the survey. This study provides a current prevalent rate of Attention deficit hyperactive disorder.

Kidd.P.M, et al (2009) conducted a study on rationale for its integrative management for attention deficit hyperactive disorder in children. Benefits obtained in some instances by the use of methylphenidate, supplementation with minerals, the B vitamins, omega-3 and omega-6 essential fatty acids, Flavonoids and the essential phospholipids. This study concludes

that supplementation, dietary modification and detoxification are effective in the management of Attention deficit hyperactive disorder.

Parry.T, et al (2009) conducted a study to identify the benefit of alternative therapy in children with Attention deficit hyperactive disorder. A mailed questionnaire survey was undertaken in June 2009, the use of various therapies by families of 381 children with Attention deficit hyperactive disorder. The respondent rate was 76%. Of that 69% were using stimulant medication and 64% had used or were using a non-prescriptional therapy. Diet therapies were the most commonly used alternative therapy (60%). This study reveals the benefit of stimulant medications along with diet therapy.

Joseph Biderman. R, et al (2008) gives the worldwide prevalence of Attention deficit hyperactive disorder. Surveys were included if they reported point prevalence of Attention deficit hyperactive disorder for subjects 18 years of age or younger from the general population or schools according to DSM or ICD criteria. One hundred and two studies comprising 171,756 subjects from all world regions were included. This study concluded that the worldwide prevalence of Attention deficit hyperactivity disorder was 5.29%.

Millichap.J.G (2008) examined etiologic classification of Attention deficit hyperactive disorder. Environmental factors include prenatal, perinatal, and postnatal in origin. Pregnancy and birth related risk factors include maternal smoking, alcohol ingestion, prematurity, hypoxic-ischemic encephalopathy, and thyroid deficiency. Childhood illnesses associated

with attention-deficit hyperactivity disorder include virus infections, meningitis, encephalitis, head injury, epilepsy, toxins, and drugs. More controversial factors discussed are diet-related sensitivities and iron deficiency. This study suggests the prenatal, perinatal, intranatal, postnatal causes of Attention deficit hyperactive disorder.

PART B: LITERATURE REVIEW RELATED TO SELECTIVE NURSING MEASURES

SECTION A: LITERATURE REVIEW RELATED TO PARENTS TEACHING

Ashraf Malik.T, et al (2014) examined the preliminary efficacy of a behavioural parent training program in Pakistan using quasi experimental design. Eighty five samples were selected in the years of four to twelve ages of children in that 55 were recruited from hospital clinics and 30 were recruited from schools. Parent and teacher ratings of Attention deficit hyperactive disorder, oppositional defiant disorder, and conduct disorder symptoms and impairment were collected. Using intent-to-treat analyses, the treatment group showed significant pre–post improvement on parent-reported Attention deficit hyperactive disorder. This study provides evidence for effectiveness of behavioural parenting training for children with Attention deficit hyperactive disorder.

Peter Yellow lees & Robert Hendren (2013) conducted a randomized controlled trial to evaluate the effectiveness of group parent training on

Attention deficit hyperactive disorder treatment delivered via videoconferencing. Twenty-two subjects were enrolled in the study, with 9 subjects in the videoconference session and 13 in the face-to-face session. The parent child relationship questionnaire for child and adolescents, Vanderbilt assessment scales, children global assessment scale, clinical global impression-severity score, clinical global impression-improvement score and social skills rating system assessed the effectiveness of the treatment. A Likert scale evaluated parents' acceptance of the training modality. This study shows that the parent training program significant at 'p' value <0.05 improving the parents' disciplinary practices.

Bartley. A (2013) examined the efficacy of parent interventions for the treatment of Attention deficit hyperactive disorder in preschoolers using Meta analysis. They have searched PubMed and the Cochrane Library for randomized, controlled trials comparing behavioural interventions for preschool children with Attention deficit hyperactive disorder. Eight trials were included in the final analysis, totalling 399 participants. There was a significant benefit of parental behavioural interventions compared with control conditions (standardized mean difference = 0.61, 95% confidence interval = [0.40, 0.83], $z = 5.6$, $p < .001$). The present meta-analysis provides preliminary evidence that parental interventions are an efficacious treatment for preschool Attention deficit hyperactive disorder.

Du Paul, George J, et al (2013) made comparison of parent education and functional assessment-based intervention on twelve month intervention

outcomes for 135 children, aged three to five with Attention deficit hyperactive disorder. Two interventions, parent education alone and parent education plus functional assessment-based home and school intervention, were compared. The current analysis examined Attention deficit hyperactive disorder symptoms, direct observations of child behaviour, academic skills, parent variables and treatment acceptability.. Although significant improvements for 27 of 46 outcome variables were obtained, indicating that parent education alone was effective. The finding of this study suggests that parent education is the effective treatment for Attention deficit hyperactive disorder.

Daley.D, et al (2013) conducted a study efficacy of a self-help parent training programme for children with attention deficit hyperactive disorder. The parenting programme includes six weeks written self-help psychological intervention. It is designed for forty-three children were randomised to either parenting programme self-help intervention or a control group. Outcomes were measured using questionnaires and direct observation, self-reported parental mental health, parenting competence, and the quality of parent-child interaction before and after the intervention. This study reveals that Attention deficit hyperactive disorder symptoms were reduced and parental competence was increased by self-help intervention.

Eileen Cormier (2010) conducted a study on parent training which is a well established treatment for children with attention deficit hyperactivity disorder. Interventions focus on teaching parents how to identify and modify

environmental factors that may be maintaining their child's problem behaviour. Three children and their mothers participated in the study. Frequency counts of parent and child behaviour were obtained from videotaped sessions during assessment and intervention phases. The data were analyzed for each mother-child using graphs and visual analyses. This study clearly identified that parent involvement in home-based functional behaviour assessment and intervention design was effective and valued by two participating families.

Renee Hartman.R, et al (2010) conducted a study that parent training is one of the most effective treatments for young children with attention deficit hyperactive disorders. Mothers of 81 boys, four to seven years of age, exhibiting attention problems attended a parent training program which lasted 22 to 24 weeks. Treatment effectiveness was assessed at one month and one year post treatment by means of independent home observations, parent and teacher reports. This study suggests that parent training is effective for boys with attention problems.

Jones.K, et al (2010) conducted a study on the efficacy of the incredible year's basic parent training programme for a community-based sample of families with pre-school children at risk of developing Attention deficit hyperactive disorder. Pre-school children displaying signs were randomly allocated to either intervention, or to a control group. Child symptoms were assessed before and after the intervention. In addition, 52% of those in the intervention condition, compared with 21% in the control condition, displayed clinically reliable improvements after post intervention,

giving an absolute risk reduction of 31% and a number needed to treat of 3.23. This study indicated that the parent training programme is a valuable intervention for many pre-school children displaying early signs of Attention deficit hyperactive disorder.

West, et al (2010) focused on the knowledge and attitudes of 92 parents toward children with Attention deficit hyperactive disorder. Parent's scores revealed that they were able to correctly answer 62.1% of the items on the knowledge scale. Furthermore, parents who attended an information seminar about Attention deficit hyperactive disorder in the previous twelve months scored higher (M = 50.68) than those who had not attended the seminar (M = 38.05). Similarly, parents who belonged to a support group (M = 48.33) scored higher than those who did not (M = 39.61). this study concludes that teaching parents increases the knowledge and attitude of parents towards children with Attention deficit hyperactive disorder.

SECTION B: LITERATURE REVIEW RELATED TO DIET MODIFICATION

Stevenson.J, et al (2014) focused on the efficacy of three dietary treatments for Attention deficit hyperactive disorder. The interventions were restricted diets, artificial food colour elimination and supplementation with free fatty acids. The range of average effect sizes in standard deviation units of restricted elimination diets is 0.29–1.2, food colour elimination diets is 0.18–0.42 and supplementation with free fatty acids is 0.17–0.31. This study

concludes that elimination of additive diets and supplementation of fatty acids are effective in reducing Attention deficit hyperactive disorder symptoms.

Annees.A.J, **et al (2014)** conducted a study concern to Nutrition, immunological mechanisms and dietary immunomodulation in Attention-deficit hyperactive disorder. It is evident that an immune imbalance and sub cellular defect occurs in Attention deficit hyperactive disorder. In added to that allergic mechanism, also pharmacological mechanisms especially in case of food additives might be involved. This study shows that nutritional approaches provide safe and low cost Attention deficit hyperactive disorder therapy.

Bonnie.L, et al (2014) conducted a study on sodium benzoate rich beverage consumption is associated with increased reporting of Attention deficit hyperactive disorder symptoms. Four seventy five students completed survey in class in fall 2010. Sodium benzoate rich beverage intake was significantly associated with Attention-deficit hyperactive disorder symptoms ($p = .001$), and significance was retained after controlling for covariates. Students scoring ≥4 on the screener reported higher intakes (34.9 ± 4.4 servings/month) than the remainder of the sample. This study suggest that a high intake of sodium benzoate rich beverages may contribute to Attention-deficit hyperactivity disorder related symptoms.

J. Gordon Millichap, et al (2012) provided a comprehensive overview of the role of dietary methods for treatment of children with Attention-deficit hyperactive disorder. Omega−3 supplement is the latest dietary treatment with

positive reports of efficacy and interest in the additive-free diet. Iron and zinc are supplemented in patients with known deficiencies and may also enhance the effectiveness of stimulant therapy. In children failing to respond or with parents opposed to medications were only given omega-3 supplements. A greater attention to the education of parents and children in a healthy dietary pattern and omitting items shown to predispose to Attention-deficit hyperactive disorder perhaps the most promising alternative treatment of Attention-deficit hyperactive disorder.

Li, Feifei (2012) conducted a critical review on childhood hyperactivity and artificial food colours. The United states food and drug administration and European food safety authorization are responsible for assuring that citizens use the artificial food colourings safely and appropriately. Since 1963, nine certified colour additives have been approved for use in the United States, and three of the nine were already banned in Europe. This study recommended that the legislature should move rapidly to enhance the reliability and safety of our food system.

Michael Bloch.H, et al (2011) focused on Omega-3 Fatty Acid Supplementation for the Treatment of Children with Attention deficit hyperactivity disorder. Omega-3 fatty acids have anti-inflammatory properties and can alter central nervous system cell membrane fluidity and phospholipids composition. Cell membrane fluidity can alter serotonin and dopamine neurotransmission. Ten trials involving 699 children were included in this meta-analysis. Omega-3 fatty acid supplementation demonstrated significant

effect in improving Attention deficit hyperactivity disorder symptoms. This study resulted that omega-3 fatty acid supplementation, particularly with higher doses of eicosapentaenoic acid, was modestly effective in the treatment of Attention deficit hyperactive disorder.

Nancy riser, et al (2011) compared serum ferritin levels on fifty three children with attention deficit hyperactive disorder symptoms and twenty seven controls with no Attention deficit hyperactive disorder symptoms. The children ranged in age between four and fourteen years. Symptoms were measured by using Connors' parent rating scale and serum ferritin levels, blood haemoglobin, hematocrit and iron levels were measured in all the children. The serum ferritin levels were twice as low in children with Attention deficit hyperactive disorder than the control group. This study suggests iron supplementation improves Attention deficit hyperactive disorder.

Jeanette, et al (2010) presented the evidence on supplementation, including single ingredients such as minerals, vitamins, amino acids and essential fatty acids, botanicals and multi-ingredient formulas in the treatment of Attention deficit hyperactive disorder symptoms. Of those supplements, found in the published studies, the evidence is best for zinc, there is mixed evidence for carnitine, pycnogenol and essential fatty acids. This study discusses the benefits of diet supplementation for Attention deficit hyperactive disorder.

Michael Huss, et al (2010) shown that the long-chained omega-3 fatty acids eicosapentaenoic acid and docosahexaenoic acid also play an important

role in the central nervous system. A large observational study monitored ten children from five to twelve years of age referred for medical help and recommended for consuming polyunsaturated fatty acid in combination with zinc and magnesium by a physician over a period of at least 3 months. Assessment was performed by internationally standardised evaluation scale. Tolerance and acceptance of the dietary therapy were documented. The results suggest a beneficial effect of a combination of omega-3 and omega-6 fatty acids as well as magnesium and zinc consumption on attentional, behavioural, and emotional problems of children.

SECTION C: LITERATURE REVIEW RELATED TO BREATHING EXERCISE AND MASSAGE THERAPY

Hariprasad, et al (2013) studied the effects of yoga as a complementary therapy in children with moderate to severe Attention deficit hyperactive disorder. Children between 5 and 16 years of age diagnosed with Attention deficit hyperactive disorder and co-operative for yoga were included. The participants were given yoga training daily during their in-patient stay. They were rated on Connors' abbreviated rating scale , Attention deficit hyperactive disorder -rating scale-IV and clinical global impression severity, at the beginning of study, at discharge and subsequently at the end of first, second and third month. This study shows significant improvement in symptoms as assessed on Connors' abbreviated rating scale (P-0.014), Attention deficit hyperactive disorder -rating scale-IV (P=0.021) and clinical global impression

severity scales (P=0.004) at the time of discharge. This study sugests the effects of yoga as a complementary therapy in children with moderate to severe Attention deficit hyperactive disorder.

John and Patrick (2012) reviewed the literature published in the past year to identify the types of complementary and alternative medicine studied in children. The researcher identified 111 published articles on complementary and alternative medicine use in children in 2011. The most common modalities were herbal/dietary supplements, acupuncture, massage, chiropractic, and homeopathy. This study gives the use of yoga therapy in treating the attention deficit hyperactive disorder in children.

Arine Vlieger.M, et al (2012) studied the current evidence on four mind body therapies that have been evaluated extensively for their efficacy in paediatrics. The therapies include hypnotherapy/guided imagery, meditation, music therapy and yoga. A Medline search was undertaken of all reports and reviews published between 1990 and 2011 on the above-mentioned mind–body modalities. Benefits of meditation have been reported for mental-health problems, high blood pressure, behavioural problems and learning disabilities. Positive effects of yoga have been shown in children with mental health problems, eating disorders and irritable bowel syndrome. This study gives considerable evidence that mind–body interventions have mild to moderate effects on physical symptoms, psychological functioning and mental-health problems.

Peck and Heather Kehle.L (2010) conducted a multiple baseline design across three grade level groups with a comparison group to investigate the effectiveness of yoga for improving time on task with ten elementary school children who evidenced attention problems. A yoga videotape which the children to follow an adult instructor and three children who engaged in deep breathing, physical postures, and relaxation exercises for 30 minutes, twice a week, for a period of three weeks. The results indicated effect sizes that ranges from 1.5 to 2.7 as a function of the intervention. Effect sizes at follow-up decreased, but ranged from 0.77 to 1.95. This study proves the effectiveness of yoga therapy on improving time on task.

Pauline Jensen.S (2010) conducted a study on yoga therapy for boys diagnosed with Attention deficit hyperactive disorder. Boys were assessed pre- and post-intervention on the Connors' Parent and Teacher Rating Scales-Revised. Data were analyzed using one-way repeated measures analysis of variance. This study shows significant improvements from pre-test to post-test were found for the yoga, but not for the control group on five subscales of the Connors' Parents Rating Scales.

Harrison.L, Manocha.R, & Rubia.K (2010) conducted a study to determine the benefit of Sahaja Yoga Meditation on improving stability of attention and concentration, motor activity, problems of inhibition, easily frustrated mood, poor self-esteem and difficulties at school of children with Attention deficit hyperactive disorder. Sahaja Yoga Meditation showed significant improvements in the entire parent rated measures. 92% of parents

agreed that the program had been personally beneficial, related to less stress, increase happiness, and increased ability to manage anger.

Barbara Maddigan, et al (2010) studied the effectiveness of massage therapy and breathing exercise on children with Attention deficit hyperactive disorder. Patients previously diagnosed with Attention deficit hyperactive disorder , combined type, according to DSM IV criteria who were stabilized on current treatments for the past two months, were randomly assigned to one of three groups massage therapy, exercise therapy and control group. The overall response from the home record was positive. In the massage group, comments included a sense of closeness between mother and child, more periods of relaxation, and settling better at night. This study concludes that the home record from the exercise group was positive with reports of improved concentration, balance and flexibility.

SECTION D: LITERATURE RELATED TO SENSORY INTEGRATION AND MOTOR ACTIVITIES

Gregory Camilli, et al (2012) focused on the sensory integration therapies for children with developmental and behavioural disorders. Sensory-based therapies involve activities that are believed to organize the sensory system by providing vestibular, proprioceptive, auditory, and tactile inputs. Brushes, swings, balls, and other specially designed therapeutic or recreational equipment are used to provide these inputs. This study concluded that sensory integration is effective for behavioural disorders, including autism spectrum

disorders, attention-deficit hyperactive disorder, developmental coordination disorders, and childhood anxiety disorders

Smith AL, et al (2013) associated physical activity with mental health and neurocognitive function addressing Attention deficit hyperactive disorder symptoms. Seventeen children exhibiting four or more hyperactivity/impulsivity symptoms on the disruptive behaviour disorders rating The author administered cognitive, motor, social, and behavioural functioning measures at pre- and post program, assessed response inhibition weekly, and coded negative behaviours daily. Most participants (64% to 71%) exhibited overall improvement according to post program parent, teacher, and program staff ratings. Physical activity shows promise for addressing Attention deficit hyperactive disorder symptoms in young children.

Jane A. Koomar, et al (2010) systematically reviewed twenty-seven studies to identify, evaluate, and synthesize the research literature on the effectiveness of sensory integration intervention on the ability of children with difficulty processing and integrating sensory information to engage in desired occupations and to apply these findings to occupational therapy practice. This study results that this approach may result in positive outcomes in sensor motor skills, motor planning, socialization, attention, and behavioural regulation, reading-related skills, participation in active play and achievement of individualized goals.

Miranda.M, et al (2010) tested the hypothesis that central catecholamine's are responsible for the increase in speed reaction seen after

physical activity and to measure the impact of high intensity physical activity on the sustained attention of 25 children diagnosed with Attention deficit hyperactive disorder consistent with the Disease Statistical Mental-IV criteria. It is possible that practicing sports assists in the management of the disorder. The children were divided between users and non-users of methylphenidate, and the groups were compared to evaluate the effect of the drug on cognition after Attention deficit hyperactive disorder. This study result suggested that children's attention deficits can be minimized through physical activity.

Harvey & William J (2009) presented a comprehensive review of research on the movement performance and physical fitness of children with attention deficit hyperactivity disorder. Movement behaviours of children with Attention deficit hyperactive disorder were described on the basis of 49 empirical studies published between 1949 and 2002. Major results indicated that children with Attention deficit hyperactive disorder are at risk for movement skill difficulties, children with Attention deficit hyperactive disorder are at risk for poor levels of physical fitness, co-morbidity may exist between Attention deficit hyperactive disorder and developmental coordination disorder, and few interventions have focused on movement performance and physical fitness of children with Attention deficit hyperactive disorder.

SECTION E: LITERATRE REVIEW RELATED TO REINFORCEMENT

Jonathan Williams, et al (2011) examined the origins of altered reinforcement effects in children with Attention deficit hyperactive disorder. It is associated with catecholamine dysfunction. The catecholamine’s are

important for response selection and memory formation, and dopamine in is important for reinforcement of successful behaviour. This study supports that reinforcement shows positive effect on Attention deficit hyperactive disorder.

James Mirabella.W, et al (2010) examined the effects of positive reinforcers on the academic behaviour of mildly disabled middle school students. The lack of intrinsic student motivation was a factor that negatively impacted the number of homework assignments submitted by mildly disabled students. Teachers in this study have also had difficulty with extrinsically motivating students to submit homework assignments. This research project explored the use of positive reinforcers on mildly disabled students who participate in Learning Strategies classes.

Marjolein Luman, et al (2010) focused on the deficits in Attention deficit hyperactive disorder which is thought to be an aberrant sensitivity to reinforcement, such as reward and response cost. Twenty-two studies concerning 1181 children employing Attention deficit hyperactive disorder and reinforcement contingencies are reviewed from vantage points such as task performance, motivation, and psychophysiology. Results indicate that reinforcement contingencies have a positive impact on task performance and levels of motivation for both children with Attention deficit hyperactivity disorder and normal controls. There is also some evidence that a high intensity of reinforcement is highly effective in Attention deficit hyperactive disorder. Children with Attention deficit hyperactive disorder prefer immediate over delayed reward. From a psycho physiological point of view, children with

Attention deficit hyperactive disorder seem less sensitive to reinforcement compared to controls.

Walker.J.L, et al (2010) theorized that partial reinforcement has positive effects on children with attention deficit hyperactive disorder. Within each condition the children received three doses of medication per day: either 0.3 mg/kg of methylphenidate (Ritalin) (i.e., 0.3 milligrams per kilogram of body weight) or a placebo. The medication was administered across 2 days. Within each reinforcement condition, half the children received the placebo on the first day and the methylphenidate on the second. The other half received the medication in the reverse order. The focus of each group during the study was to learn how to spell lists of 10 nonsense words. The findings suggest that reinforcement alone improves the academic performance of children with Attention deficit hyperactive disorder and that reinforcement combined with medication has an even greater beneficial effect on academic performance.

SECTION F: LITERATURE REVIEW RELATED TO TIME OUT TECHNIQUE

Laura Clintock.M.C (2010) evaluated the presence of children with Attention deficit hyperactive disorder impacts upon the educational and behavioural climate of the mainstream classroom. It also addresses the effectiveness of a range of approaches to the management of such children with Attention deficit hyperactive disorder in the classroom. These approaches included medical intervention in the form of a prescribed drug and the use of a behaviour management strategy. The research focused on a sample of primary

schools in the north eastern education and library Board. The opinions of teachers were sought through the completion of questionnaires, and the results enhanced with information collected through semi-structured interviews. Results showed that the most effective form of behavioural management is a 'time out' technique.

Kristopher .C, et al (2010) had done a Meta-Analysis of the effectiveness of time out in reducing disruptive classroom behaviour. The current single-subject meta-analysis investigated the effect of time-out for the reduction of disruptive classroom behaviours in non-developmentally delayed children. Heron, and Heward (2007) defined time-out as the withdrawal of the opportunity to earn positive reinforcement or the loss of access to positive reinforcement for a specified time, contingent on the occurrence of a behaviour. This study results the benefits of time-out technique in a day for a disruptive behaviour.

Costenbader & Reading-Brown (2010) proposed that few behavioural management techniques have generated as much controversy as isolation timeout. Educators and other professionals have used timeout procedures to modify a broad range of maladaptive behaviours in children and youth. Timeout is a somewhat aversive procedure on the continuum of behaviour reduction techniques, which also include environmental modification, differential reinforcement, response cost, overcorrection, aversive conditioning, and corporal punishment.

CHAPTER III

METHODOLOGY

The methodology of this study includes the research approach, research design, and setting of the study, population, sample, sample size, sampling Technique, developing and description of the tool, method of data collection and plan for data analysis and interpretation of data.

RESEARCH APPROACH

It is the overall plan to test the hypothesis. This study was designed to assess the effectiveness of selective nursing measures among children with attention deficit hyperactive disorder by using quantitative research approach.

RESEARCH DESIGN

Pre experimental one group pre-test and post-test research design was used in this study.

SETTINGS

This study was conducted in Annai Illam, centre for special children, Melmaruvathur, Kanchipuram district in Tamilnadu.

POPULATION

The population of this study comprises of 7-13 years of children with Attention deficit hyperactive disorder.

SAMPLE

The sample for the present study was children who were at Annai Illam diagnosed as Attention deficit hyperactive disorder, who were willing to participate and present during the period of data collection.

SAMPLE SIZE

The total sample for the study was 50 children with Attention deficit hyperactive disorder at Annai Illam.

SAMPLING TECHNIQUE

Convenient sampling technique was adapted for selecting the samples.

CRITERIA FOR SAMPLE SELECTION

INCLUSION CRITERIA

- Children of 7-13 years of age.
- Both male and female children.
- Children who were at Annai illam, a special school.
- Children who were present during data collection period.
- Children who were co-operative.
- Parents who knew Tamil and English language

EXCLUSION CRITERIA

- Children with other co-morbid medical and psychiatric conditions.
- Children whose parents were non-cooperative.

INSTRUMENTS FOR DATA COLLECTION

The tool acts as an instrument to assess and collect the data from the respondents of the study. The descriptions of the tools are

PART A: Demographic variables such as age, sex, educational status of the children, religion, occupation of the father and mother, family monthly income, type of marriage, birth order, illness during antenatal period, mode of delivery, illness during neonatal period, family pattern, dietary pattern, type of ADHD that exist in children, duration of illness, usage of medications, and history of ADHD in parents.

PART B: Conners Parent Rating Scale Revised-(S) By Keith Conners, PhD.

CHAPTER-IV

DATA ANALYSIS AND INTERPRETATION

This chapter deals with data analysis and interpretation of data collected from 50 samples of children who were at Annai Illam diagnosed as Attention deficit hyperactive disorder. This chapter contains description of the tool, pilot study report, reliability, validity and informed consent, scoring procedure, scoring interpretation, data collection procedure and statistical analysis.

DESCRIPTION OF THE TOOL

The descriptions of the tools are

PART A: Demographic variables such as age, sex, educational status of the children, religion, occupation of the father and mother, family monthly income, type of marriage, birth order, illness during antenatal period, mode of delivery, illness during neonatal period, family pattern, dietary pattern, type of ADHD that exist, duration of illness, usage of medications, and history of ADHD in parents.

PART B: Conners Parent Rating Scale Revised-(S) By Keith Conners, PhD. It consists of 27 items of common behavioural problems that children with Attention deficit hyperactive disorder have.

VALIDITY

The tool was prepared by the investigator based on literature review, under the guidance of experts and on the basis of objectives, which were assessed and evaluated, accepted by experts of research committee. The content validity of the tool was obtained from research experts from the field of paediatric nursing.

RELIABILITY

The reliability was checked by inter-rater method. The reliability was 0.89(89%). Reliability and practicability of tool was tested through the pilot study.

PILOT STUDY REPORT

The pilot study was conducted to assess the effectiveness of selective nursing measures among children with Attention deficit hyperactive disorder at Annai Illam, a special school for children, Melmaruvathur, Kanchipuram district for a period of ten days. The standard tool was used to assess the behavioural pattern of the children before and after the intervention. The investigator used convenient sampling technique to select five samples and the nursing measures was provided and the behavioural status was evaluated and data were analyzed by paired‘t’ test. The calculated value is more than tabulated value hence there was statistically significant improvement in the behavioural status of the children with Attention deficit hyperactive disorder.

INFORMED CONSENT

Written consent was taken from the parents of the children participated in this study. The data collection was done for six weeks by using interview and observational method. Assurance was given that confidentiality would be maintained.

DATA COLLECTION PROCEDURE

The study was conducted at Annai Illam, Melmaruvathur, Kanchipuram district, Tamilnadu. The data collection period is from 01.06.2014 to 16.07.2014. The investigator obtained permission from the Executive trustee, Annai Illam. The data collection period was about 6 weeks by using the prepared tools. In the pre-test the behavioural pattern of the children with Attention deficit hyperactive disorder was assessed. The selective nursing measures were given to all the fifty by allotting five children in each group. The session was carried with deep breathing exercise for 15mins, massage therapy for 15mins, sensory integration and motor activities for 30mins. The positive reinforcement was given to the children by phrases and providing small gifts. The time out technique was used when the children were irritated. The parents were taught regarding behavioural interventions and dietary modifications by using flash card and chart. The post behavioural assessment was conducted using the same tool and finally the reports were analysed.

SCORING PROCEDURE

PART-A

This tool consists of demographic variables and it is used for descriptive statistics only.

PART-B

It consists of 27 items of common problems that children have. Parents are allowed to rate according to their Child's behaviour in the last month. The total score was 81.This scale is categorized in the series "never" caries 0 score, "occasionally" caries 1 score, "often" caries 2 score, "very often" caries 3 score.

SCORE INTERPRETATION

The score was interpretated as follows

$$\text{Score interpretation} = \frac{\text{obtained score}}{\text{Total score}} \times 100$$

TABLE 4.1: SCORE INTERPRETATION

BEHAVIOURAL STATUS	SCORE
MILD	<50%
MODERATE	51-75%
SEVERE	>75%

STATISTICAL METHOD

The descriptive statistics was used to find the mean, standard deviation, frequency percentage and inferential statistics was used to find the effectiveness of selective nursing measures by paired ‘t’ test and chi-square test was used to associate the demographic variables with the effectiveness of selective nursing measures among children with Attention deficit hyperactive disorder.

DATA ANALYSIS AND INTERPRETATION

The items were scored after assessment and finally the valuation and results were tabulated. By using the statistical analysis method the scores were analysed.

TABLE 4.2: STATISTICAL METHOD OF DATA ANALYSIS

S. No	Data analysis	Method	Remarks
1.	Descriptive statistical analysis	Frequency, percentage, mean, and standard deviation	To describe the demographic variables of the children with Attention deficit hyperactive disorder.
2.	Inferential statistical analysis	Paired ‘t’ test	To analyze the effectiveness of selective nursing measures among children with

		Chi-square test	Attention deficit hyperactive disorder. To analyze the association between the selected demographic variables and effectiveness of selective nursing measures among children with Attention deficit hyperactive disorder.

DATA ANALYSIS AND INTERPRETATION HAVE BEEN DONE UNDER THE FOLLOWING HEADINGS

SECTION-A

Frequency and Percentage distribution of Demographic variables of children with Attention deficit hyperactive disorder

SECTION-B

Frequency and percentage distribution of pre test and post test score.

SECTION-C

Comparison of Mean and Standard deviation of Pre-test and Post-test scores.

SECTION-D

Improvement score of the behavioural pattern among children with Attention deficit hyperactive disorder before and after giving the selective nursing measures.

SECTION-E

Association between the selected demographic variables with the effectiveness of selective nursing measures.

SECTION-A

TABLE 4.3DEPICTS THE FREQUENCY AND PERCENTAGE DISTRIBUTION OF CHILDREN WITH ATTENTION DEFICIT HYPERACTIVE DISORDER TO THE DEMOGRAPHIC DATA

N=50

S.NO.	DEMOGRAPHIC VARIABLES	FREQUENCY	PERCENTAGE
1.	**Age**		
	a) 7-8 years	24	48.00%
	b) 9-10 years		
	c) 11-13 years	16	32.00%
		10	20.00%
2.	**Sex**		
	a) Male	40	80.00%
	b) Female		
		10	20.00%
3.	**Educational status of the children**	0	0.00%
	a) Illiterate	34	66.00%
	b) Primary level		
	c) Middle school level	16	32.00%
	d) Dropped from school		
		0	0.00%
5.	**Occupation of the father**		
	a) Unemployed	0	0.00%
	b) Salaried employee		
	c) Business	31	62.00%
	d) Agriculture		
		14	28.00%
		5	10.00%
6.	**Occupation of the mother**		
	a) Home maker	41	82.00%
	b) Salaried employee		
	c) Business	6	12.00%
		3	06.00%
7.	**Family monthly income**		
	a) <3000/ month	0	0.00%
	b) 3001-4000/month		

	c) 4001-5000/month d) >5000/month	0 1 49	0.00% 2.00% 98.00%
8.	**Type of marriage** a) Consanguineous b) Non-consanguineous	 19 31	 38.00% 62.00%
9.	**Birth order** a) First b) Second c) Twins d) Third and above	 23 27 0 0	 46.00% 54.00% 0.00% 0.00%
10.	**Illness during antenatal period** a) Yes b) No	 9 41	 18.00% 82.00%
11.	**Mode of delivery** a) Spontaneous vaginal delivery b) LSCS c) Instrumental delivery	 31 15 4	 62.00% 30.00% 08.00%
12.	**Illness during neonatal period** a) Yes b) No	 24 26	 48.00% 52.00%
13.	**Family pattern** a) Joint family b) Nuclear family	 0 50	 0.00% 100.00%
14.	**Dietary pattern of child** **a)** Vegetarian **b)** Non-vegetarian	 8	 16.00%

		42	84.00%
15.	**Type of ADHD that exist** a) Predominantly inattentive b) Predominantly hyperactive-impulsive type c) Combination type	 7 10 33	 14.00% 20.00% 66.00%
16.	**Duration of illness** a) Two years b) Three years c) More than four years	 2 15 33	 4.00% 30.00% 66.00%
17.	**Usage of medications for ADHD** a) Yes b) No	 23 27	 46.00% 54.00%
18.	**History of ADHD in parents** a) Yes b) No	 1 49	 2.00% 98.00%

Table 4.3 shows that out of 50 samples, 24 (48%) were in the age group of 7-8 years, 16(32%) were in the age group of 9-10 years and 10(20%) were in the age group of 11-13 years.

In case of gender, out of 50, 40(80%) male and 10(20%) female. In view of educational status of the children zero percentage was illiterate, 34(66%) was at primary level, 16(32%) was middle school level and no one has dropped from school.

Regarding religion 48(96%) were Hindu, 1(2%) was Christian and 1(2%) was Muslim. In terms of occupation of the father 31(62%) were salaried employee, 14(28%) were doing business and 5(10%) were doing agriculture.

In terms of occupation of the mother 41(82%) homemakers, 6(12%) salaried employee, 3(6%) doing business.

In case of family monthly income 1(2%) between 3001-5000/ month and 49(98%) were above 5000/month.

Regarding type of marriage 19(38%) were consanguineous and 31(62%) were non-consanguineous.

In concern to birth order 23(46%) were first, 27(54%) were second. No one was third, above three and twin studies. In case of illness during antenatal period 9(18%) had illness and 41(82%) had no illness.

In concern to mode of delivery 31(62%) by spontaneous vaginal delivery, 15(30%) by LSCS and 4(8%) by instrumental delivery.

In case of children who had illness during neonatal period, 24 (48%) had illness and 26 (52%) had no illness.

In case of type of family the children live, all the children were in nuclear family only. In case of dietary pattern of the children 8(16%) vegetarian and 42(84%) Non-vegetarian.

In terms of type of ADHD that exist to the children 7(14%) were predominantly inattentive, 10(20%) were predominantly hyperactive-impulsive type and 33(66%) had combined type.

In case duration of illness 2(4%) had for two years, 15(30%) had for three years and 33(66%) had for four and more than four years.

In terms of usage of medications 23(46%) were taking medications and 27(54%) were not taking medications. In case of history of ADHD in parents only 1(2%) had that history.

SECTION-B

TABLE 4.4 DEPICITS THE FREQUENCY AND PERCENTAGE DISTRIBUTION OF PRE-TEST AND POST-TEST SCORE

N=50

S.no	Behavioral status	Mild		Moderate		Severe		TOTAL	
		NO.	%	NO.	%	NO.	%	NO.	%
1.	PRE-TEST	10	20%	26	52%	14	28%	50	100%
2.	POST-TEST	33	66%	16	32%	1	2%	50	100%

Table 4.4 shows the behavioural status of the children with Attention deficit hyperactive disorder on the pre-test and post-test. During the pre-test 10(20%) had mild behavioural deterioration, 26(52%) had moderate behavioural deterioration and 14(28%) had severe behavioural deterioration. During the post-test 33(66%) shown mild behavioural deterioration, 16(32%) shown moderate deterioration and 1(2%) shown severe behavioural deterioration.

SECTION-C

TABLE 4.5DEPICITS THE COMPARISON OF MEAN AND STANDARD DEVIATION OF PRE-TEST AND POST-TEST SCORES

N=50

S.NO	BEHAVIORAL STATUS	MEAN	STANDARD DEVIATION
1.	PRE-TEST	49.62	11.861
2.	POST-TEST	40.54	10.294

Table 4.5 shows that the day of Pre-test the Mean was 49.62 with the Standard deviation of 11.861. On the day of Post-test the Mean was 40.54 with the standard deviation of 10.294.

SECTION-D

TABLE 4.6 ILLUSTRATES THE IMPROVEMENT SCORE OF THE BEHAVIOURAL PATTERN AMONG CHILDREN WITH ATTENTION DEFICIT HYPERACTIVE DISORDER BEFORE AND AFTER GIVING THE SELECTIVE NURSING MEASURES.

N=50

S.NO	BEHAVIOURAL STATUS	MEAN	STANDARD DEVIATION	"t" VALUE	"p"VALUE
1.	IMPROVEMENT SCORE	9.08	3.51	18.29	P<0.05

Table 4.6 shows the improvement mean score of mean 9.08 with the standard deviation of 3.51 and the paired "t" test was applied. The 't' value was 18.29, since the calculated value is greater than the table value at 'p'<0.05 level of significance. Hence it was statistically proved that there is a significant improvement in the behavioural status of the children with Attention deficit hyperactive disorder after the selective nursing measures.

SECTION-E

TABLE 4.7 DEPICITS THE ASSOCIATION BETWEEN THE EFFECTIVENESS OF SELECTIVE NURSING MEASURES WITH SELECTED DEMOGRAPHIC VARIABLES AMONG CHILDREN WITH ATTENTION DEFICIT HYPERACTIVE DISORDER.

N=50

S.no	Demographic Variables		POST-TEST						Chi-square Value	"P" value
			Mild		Moderate		Severe			
			No.	%	No.	%	No	%		
1.	Age	7-8 Years	17	34%	7	14%	0	0 %	2.557	0.634
		9-10 Years	10	20%	5	10%	1	2 %		
		11-13 Years	06	12%	4	8%	0	0 %		

2.	Sex	Male	24	48%	15	30%	1	2 %	3.232	0.199
		Female	9	18%	1	2%	0	0 %		
3.	Education status of the children	Illiterate	0	0%	0	0%	0	0 %	0.502	0.778
		Primary Level	22	44%	11	22%	1	2 %		
		Middle school Level	11	22%	5	10%	0	0 %		
		Dropped from School	0	0%	0	0%	0	0 %		
4.	Religion	Hindu	31	62%	16	32%	1	2 %	1.073	0.898
		Muslim	1	2%	0	0%	0	0 %		
		Christian	1	2%	0	0%	0	0 %		
		Others	0	0%	0	0%	0	0 %		
5.	Occupation of the father	Unemployed	0	0%	0	0%	0	0 %	12.1*	0.016
		Salaried Employee	22	44%	9	88%	0	0 %		
		Business	10	20%	4	40%	0	0 %		
		Agriculture	1	2%	3	2%	1	2 %		
6.	Occupation of the mother	Homemaker	27	54%	13	26%	1	2 %	0.226	0.994
		Salaried Employee	4	8%	2	4%	0	0 %		
		Business	2	4%	1	2%	0	0 %		

7.	Family monthly income	<3000 /month	0	0%	0	0%	0	0 %	2.168	0.338
		3001-4000/month	0	0%	0	0%	0	0 %		
		4001-5000/month	0	0%	1	2%	0	0 %		
		Above 5000/month	33	66%	15	30%	1	2 %		
8.	Type of marriage	Consanguineous	13	26%	5	%	1	2 %	1.968	0.374
		Non-consanguineous	20	40%	11	%	0	0 %		
9.	Birth order	First	16	32%	7	14%	0	0 %		
		Second	17	34%	9	18%	0	0 %		
		Twins	0	0%	0	0%	0	0 %		
		Third and above	0	%	0	0%	1	2 %		
10.	Illness during antenatal period	Yes	6	12%	3	9%	0	0 %	0.966	0.617
		No	27	54%	13	26%	1	2 %		
11.	Mode of delivery	Spontaneous vaginal delivery	23	46%	7	14%	1	2 %	0.226	0.893
		LSCS	8	16%	7	14%	0	0 %		
		Instrumental delivery	2	4%	2	4%	0	0 %		
12	Illness	Yes	16	32%	8	16%	0	0		

.	during neonatal period							%	0.952	0.621
		No	17	54%	8	16%	1	2 %		
13.	Dietary pattern of the child	Vegetarian	7	14%	1	1%	0	0 %	1.989	0.37
		Non-vegetarian	26	52%	15	30%	1	2 %		
14.	Type of ADHD that exist	Predominantly inattentive	4	16%	3	6%	0	0 %	3.583	0.465
		Predominantly hyperactive-impulsive Type	9	18%	1	2%	0	0 %		
		Combined type	20	40%	12	24%	1	2 %		
15.	Duration of illness	Two years	2	4%	0	0%	0	0 %	2.103	0.717
		Three years	11	22%	4	8%	0	0 %		
		More than four years	20	40%	12	24%	1	2 %		
16.	Usage of medications for ADHD	Yes	19	38%	3	6%	1	2 %	6.43*	0.003
		No	14	28%	12	24%	1	2 %		
17.	History of	Yes	0	0%	1	2%	0	0 %	0.168	0.338

	ADHD in parents	No	33	66%	15	30%	1	2 %		

Table 4.7 shows that there is a significant association between occupation of the father and usage of medications with the effectiveness of selective nursing measures and other selected demographic variables showed no significant association with the effectiveness of selective nursing measures among children with Attention deficit hyperactive disorder.

CHAPTER-V

RESULTS AND DISCUSSION

The main objective of the study was to determine the effectiveness of selective nursing measures among children with Attention deficit hyperactive disorder at Annai Illam. Totally 50 samples were selected for the study. The behavioural pattern of the children was assessed by using Conners' parent rating scale. The selected nursing measures were provided to each child for six weeks. The behavioural pattern of the children was assessed after the intervention. This shows improvement in the behavioural pattern of the children.

The results of the study have been discussed according to the objectives of the study, conceptual framework and on related literatures.

The first objective of the study was to assess the behavioural pattern of the children with Attention deficit hyperactive disorder by using Conners' parent rating scale.

Table 4.3 reveals that out of 50 samples, Table 4.3 shows that out of 50 samples, 24 (48%) were in the age group of 7-8 years, 16(32%) were in the age group of 9-10 years and 10(20%) were in the age group of 11-13 years.

In case of gender, out of 50, 40(80%) male and 10(20%) female. In view of educational status of the children zero percentage was illiterate,

34(66%) was at primary level, 16(32%) was middle school level and no one has dropped from school.

Regarding religion 48(96%) were Hindu, 1(2%) was Christian and 1(2%) was Muslim. In terms of occupation of the father 31(62%) were salaried employee, 14(28%) were doing business and 5(10%) were doing agriculture.

In terms of occupation of the mother 41(82%) homemakers, 6(12%) salaried employee, 3(6%) doing business.

In case of family monthly income 1(2%) between 3001-5000/ month and 49(98%) were above 5000/month.

Regarding type of marriage 19(38%) were consanguineous and 31(62%) were non-consanguineous.

In concern to birth order 23(46%) were first, 27(54%) were second. No one was third, above three and twin studies. In case of illness during antenatal period 9(18%) had illness and 41(82%) had no illness.

In concern to mode of delivery 31(62%) by spontaneous vaginal delivery, 15(30%) by LSCS and 4(8%) by instrumental delivery.

In case of children who had illness during neonatal period, 24 (48%) had illness and 26 (52%) had no illness.

In case of type of family the children live, all the children were in nuclear family only. In case of dietary pattern of the children 8(16%) vegetarian and 42(84%) Non-vegetarian.

In terms of type of ADHD that exist to the children 7(14%) were predominantly inattentive, 10(20%) were predominantly hyperactive-impulsive type and 33(66%) had combined type.

In case duration of illness 2(4%) had for two years, 15(30%) had for three years and 33(66%) had for four and more than four years.

In terms of usage of medications 23(46%) were taking medications and 27(54%) were not taking medications. In case of history of ADHD in parents only 1(2%) had that history.

The second objective was to determine the effectiveness of selective nursing measures among children with Attention deficit hyperactive disorder.

Table 4.4 shows that during the assessment day 10(20%) had mild behavioural deterioration, 26(52%) had moderate behavioural deterioration and 14(28%) had severe behavioural deterioration. After providing selective nursing measures on the evaluation day 33(66%) had mild behavioural deterioration, 16(32%) had moderate deterioration and 1(2%) had severe behavioural deterioration.

Table 4.6 illustrates the improvement mean score of mean 9.08 with the standard deviation of 3.51 and the paired "t" test was applied. The 't' value was 18.29, since the calculated value is greater than the table value at 'p'<0.05 level of significance.

Hence accepting the research hypothesis i.e. there is a significant relationship between the effectiveness of selective nursing measure and improvement of behavioural status among children with Attention deficit hyperactive disorder.

The third objective was to find out the association between the effectiveness of selective nursing measures with demographic variables among children with Attention deficit hyperactive disorder.

Table 4.7 shows that there is a significant association between occupational of the father and usage of medications for Attention deficit hyperactive disorder with the effectiveness of selective nursing measures and other selected demographic variables showed no significant association with the effectiveness of selective nursing measures among children with Attention deficit hyperactive disorder.

CHAPTER-VI

SUMMARY AND CONCLUSION

SUMMARY

This study focused on the effectiveness of selected nursing measures among children with Attention deficit hyperactive disorder at Annai Illam, The special school for children at Melmaruvathur.

The objectives of the study were to assess the behavioural pattern of the children with Attention deficit hyperactive disorder by using Conners' parent rating scale, to determine the effectiveness of selective nursing measures among children with Attention deficit hyperactive disorder and to associate the effectiveness of selective nursing measures with selected demographic variables among children with Attention deficit hyperactive disorder. A review of related literature enabled the researcher to develop the conceptual frame work, tools and methodology which is the corner stone of the study. Health Promotion theory provided a conceptual base for the study.

A Pre-experimental research approach with one group Pre-and Post test design was selected and used to attain the objectives of the study. ThIS study was conducted at Annai illam, the sample size of the study was100 which was selected through non-probability convenient sampling method.

The instruments used for the study were demographic variables and a rating scale. After carried out the pilot study, the data collection for main study

was done. Pre assessment was done for the children with Attention deficit hyperactive disorder then followed by the selective nursing measures such teaching parents, diet modification, deep breathing exercise, massage therapy, sensory integration and motor activities, reinforcement and time out techniques for a period of six weeks and then the post-test was conducted.

The collected data were tabulated and analysed by using descriptive and inferential statistics, frequency and percentage were completed to summarise the sample characteristics, mean and standard deviation was calculated to compare the Pre-test and Post test score, paired t-test was calculated to find out the improvement score between pre-test and post test, chi-square test was done to find out the association between the effectiveness of selective nursing measures with demographic variables among children with Attention deficit hyperactive disorder

The statistical analysis shows that on the day of Pre-test the Mean was 49.62 with the Standard deviation of 11.861 and on the day of Post-test the Mean was 40.54 with the standard deviation of 10.294. The improvements mean score was 9.08 with the standard deviation of 3.51and the paired “t” test value was 18.29 with the ‘p’ value of <0.05 which was highly significant. There was significant association between occupation of the father and usage of medications for Attention deficit hyperactive disorder with the effectiveness of selective nursing measures, and other selected demographic variables showed no significant association with the effectiveness of selective nursing measures among children with Attention deficit hyperactive disorder.

CONCLUSION

The present study provides additional evidence with respect and makes several noteworthy contributions about the several behavioural treatments for Attention deficit hyperactive disorder. This study also facilitated the parents to care their children effectively and guide the children to regulate their behaviour and improve their daily functions. The present study was conducted at Annai illam, Melmaruvathur with the fifty children with Attention deficit hyperactive disorder. The selective measures made considerable changes in the behavioural pattern of the children and the parents gave their feedback regarding the selective measures.

NURSING IMPLICATIONS

The findings of the study have implications in different dimensions of nursing profession i.e. Nursing Practice, Nursing Education, Nursing Administration and Nursing Research. Many steps can be taken to strengthen the findings of the study which was bounded by the dimensions of nursing profession.

IMPLICATIONS FOR NURSING PRACTICE

- Paediatric nurse, have the responsibility to promote the physical and mental health of the children.
- Nurses working in paediatric wards and community settings should have wide knowledge about assessment and nursing care of the children with attention deficit hyperactive disorder.

- Nurses should be aware of the management for attention deficit hyperactivity disorder with a detailed history taking, drug therapy, assisting children in sensory integration therapy and motor activities, behavioural interventions, assisting the needs and adequate family education.

IMPLICATIONS FOR NURSING EDUCATION

- Nurse educators should give opportunity for the nursing students to learn about the Attention deficit hyperactive disorder.
- Nursing educators insist the students to have the current knowledge about the behavioural interventions carried to mould the behavioural pattern of the children and its vital role in the normal functioning of their daily activities.
- Nursing curriculum can be modified with increased emphasis of behavioural disorder of the children.

IMPLICATION FOR NURSING ADMINISTRATION

- Nurse administrators have the responsibility to provide in continuing education to their colleagues regarding the behavioural interventions and dietary modifications for attention deficit hyperactive disorder.
- Nursing Administrators can organize in-service education.
- Adequate staffing in paediatric ward to be given as per norms.

IMPLICATION FOR NURSING RESEARCH

- Extensive research innovative and creative ideas can be invited and this provides evidence based nursing practice, for the future research and other researchers.
- Researcher can disseminate the research findings through conferences, seminars, journals, World Wide Web, mainly to create an awareness concerning the behavioural interventions and dietary modifications for Attention deficit hyperactive disorder.

RECOMMENDATIONS

- This study can be conducted in larger group.
- This study can be conducted in different settings.
- A study to assess the effectiveness of behavioural techniques among children with Attention deficit hyperactive disorder.
- A study to assess the impact of education on behavioural interventions and dietary modifications among parents of Attention deficit hyperactive disorder.
- A study to compare the effectiveness of dietary modifications among the experimental and control group among children with Attention deficit hyperactive disorder.

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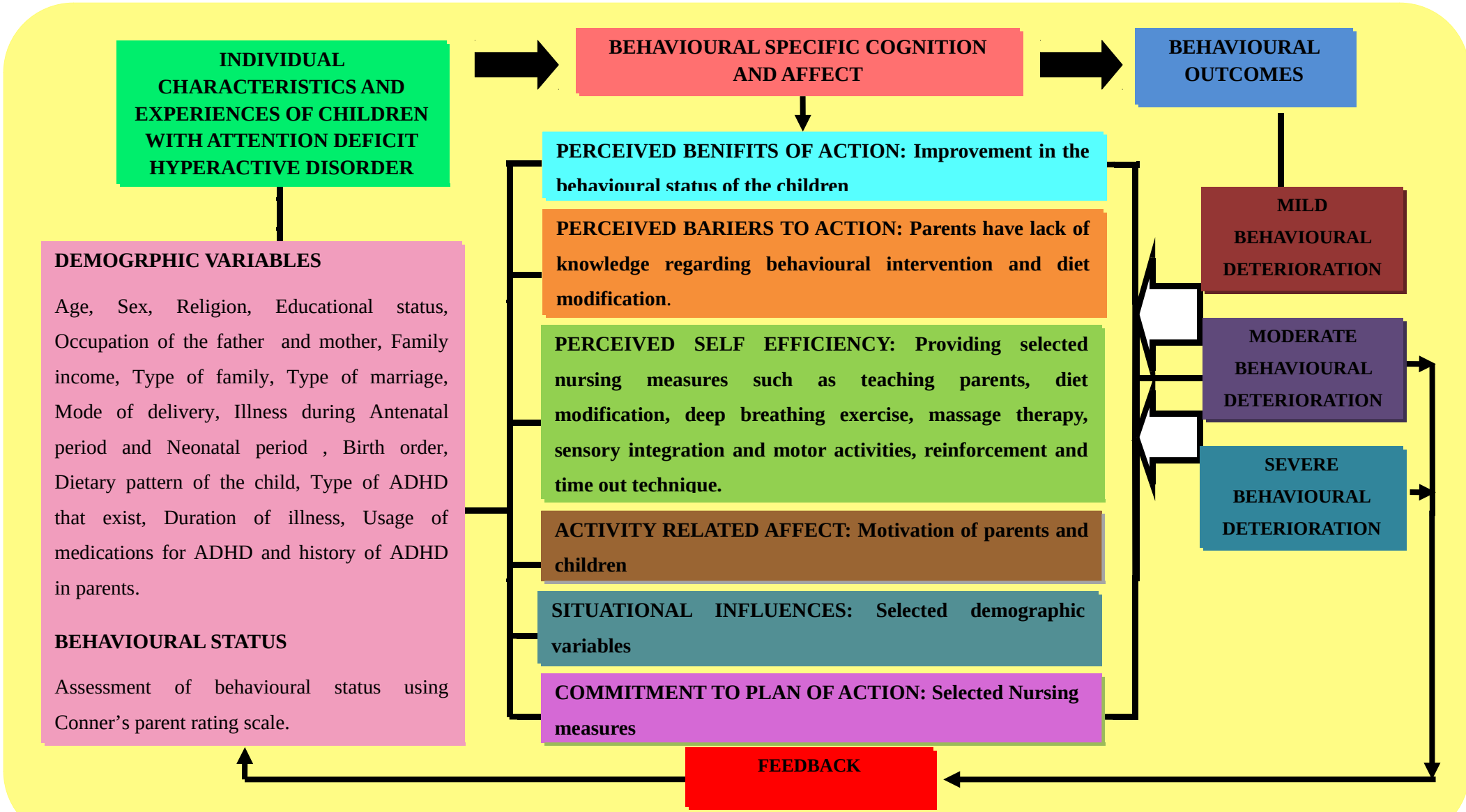

FIG 1.1: CONCEPTUAL FRAMEWORK ON MODIFIED PENDERS NJ HEALTH PROMOTION MODEL (2014)

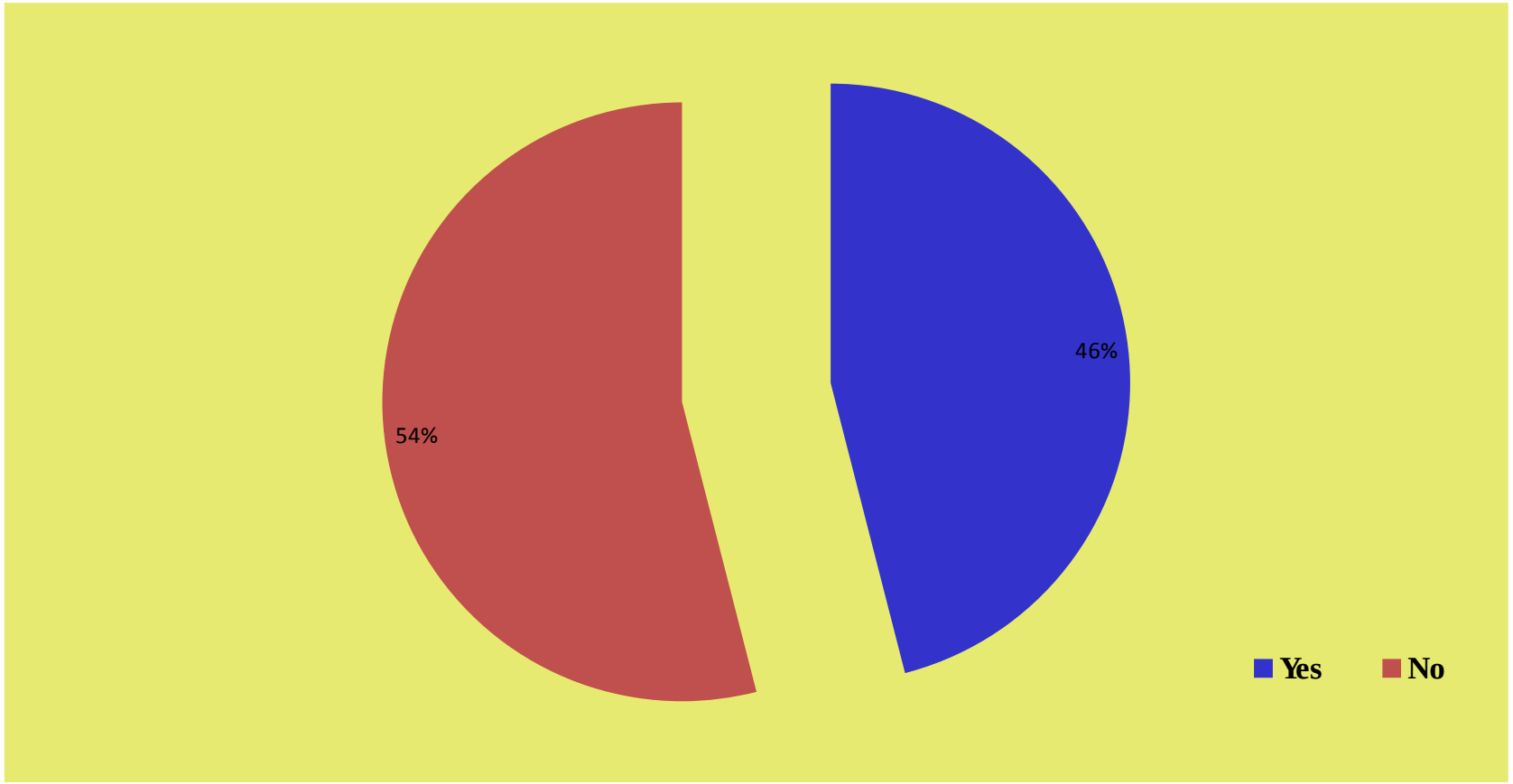
46%
54%
Yes
No

FIG 4.3I: PERCETAGE AND DISTRBUTION OF CHILDREN WITH ATTENTION DEFICIT HYPERACTIVE DISORDER BASED ON USAGE OF MEDICATIONS

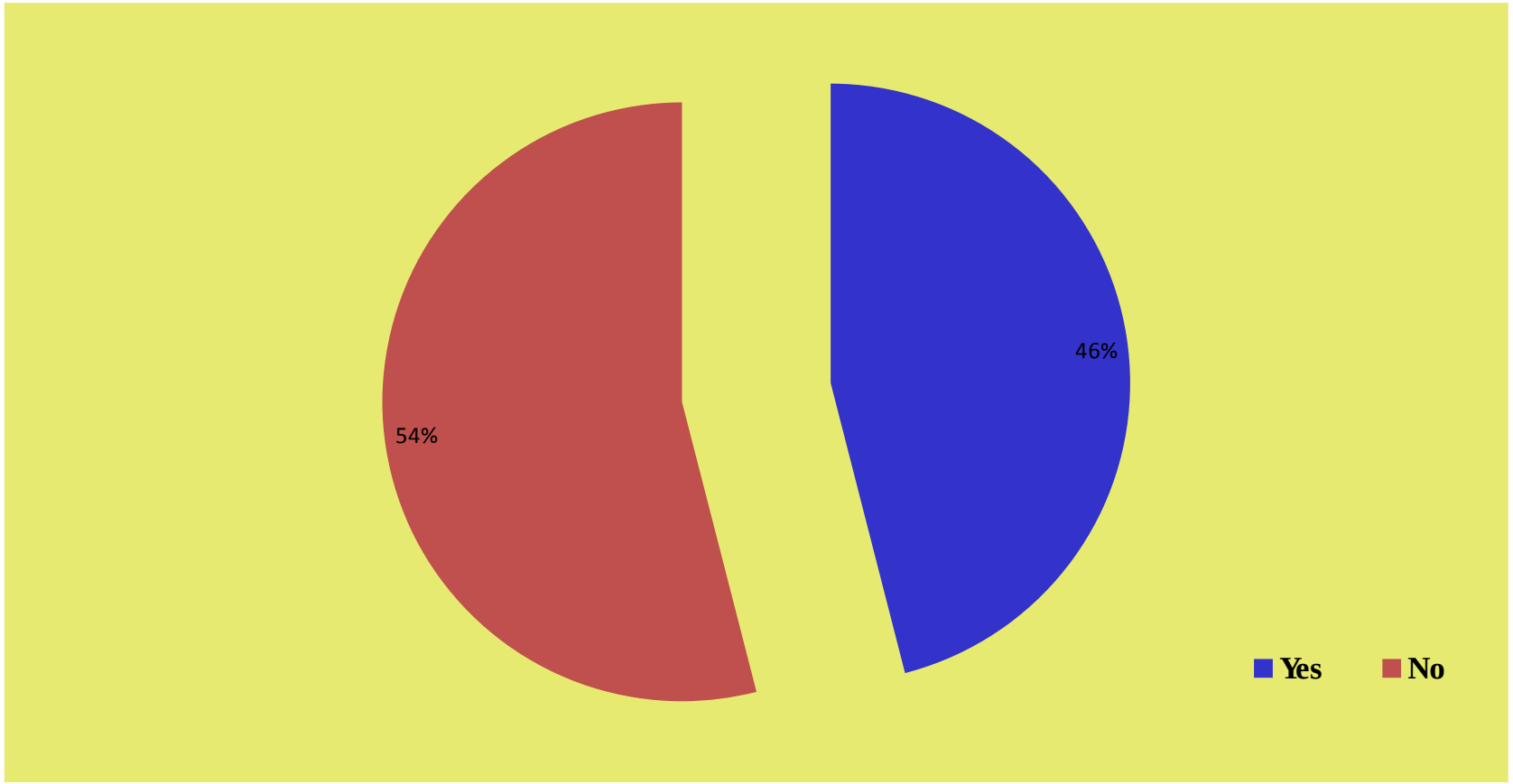
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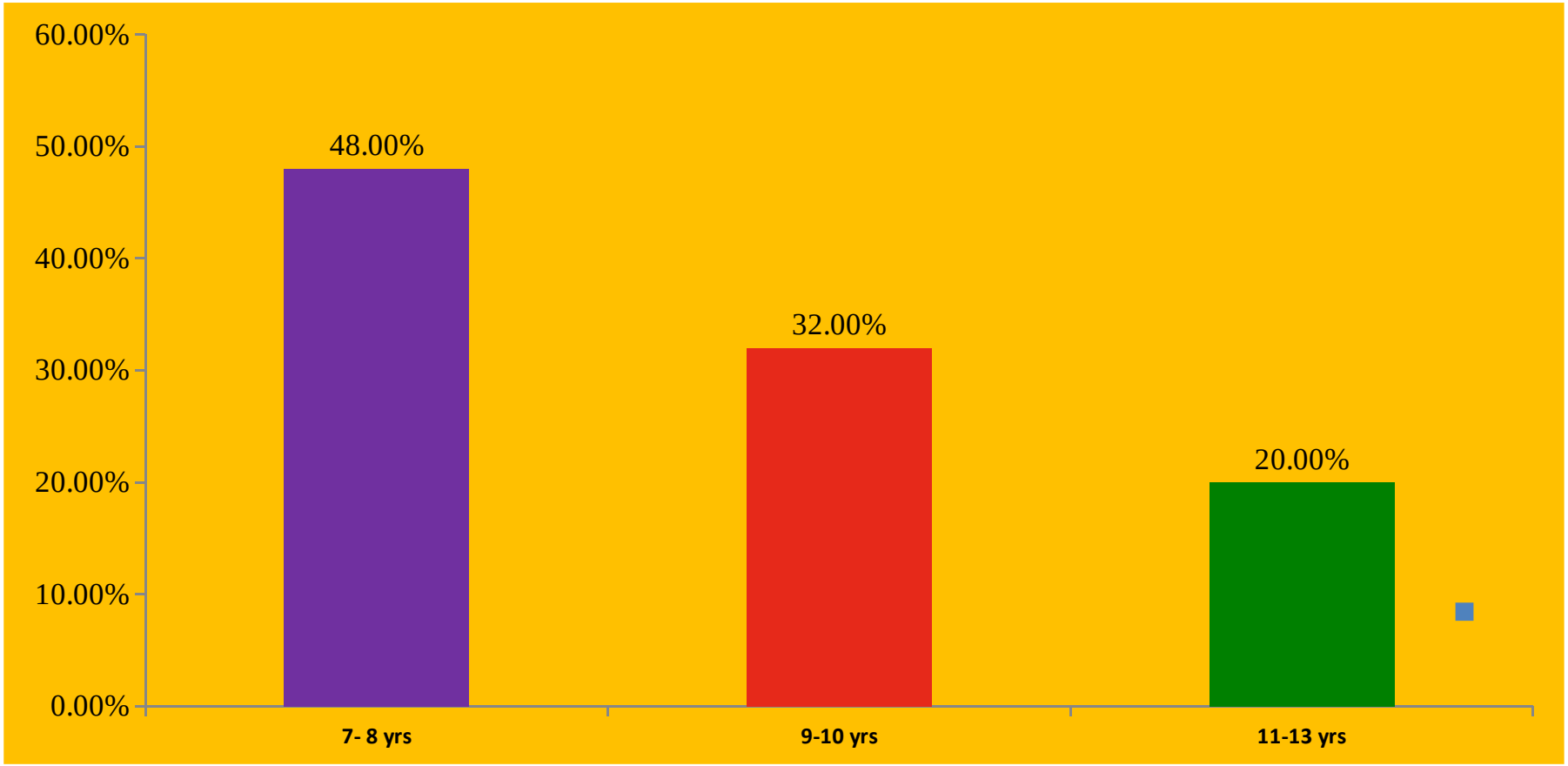
FIG 4.3I: PERCETAGE AND DISTRBUTION OF CHILDREN WITH ATTENTION DEFICIT HYPERACTIVE DISORDER BASED ON USAGE OF MEDICATIONS


60.00%
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30.00%
20.00%
10.00%
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32.00%
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7- 8 yrs
9-10 yrs
11-13 yrs

FIG 4.3A PERCENTAGE AND DISTRIBUTION AMONG CHILDREN WITH ATTENTION DEFICIT HYPERACTIVE DISORDER BASED ON AGE

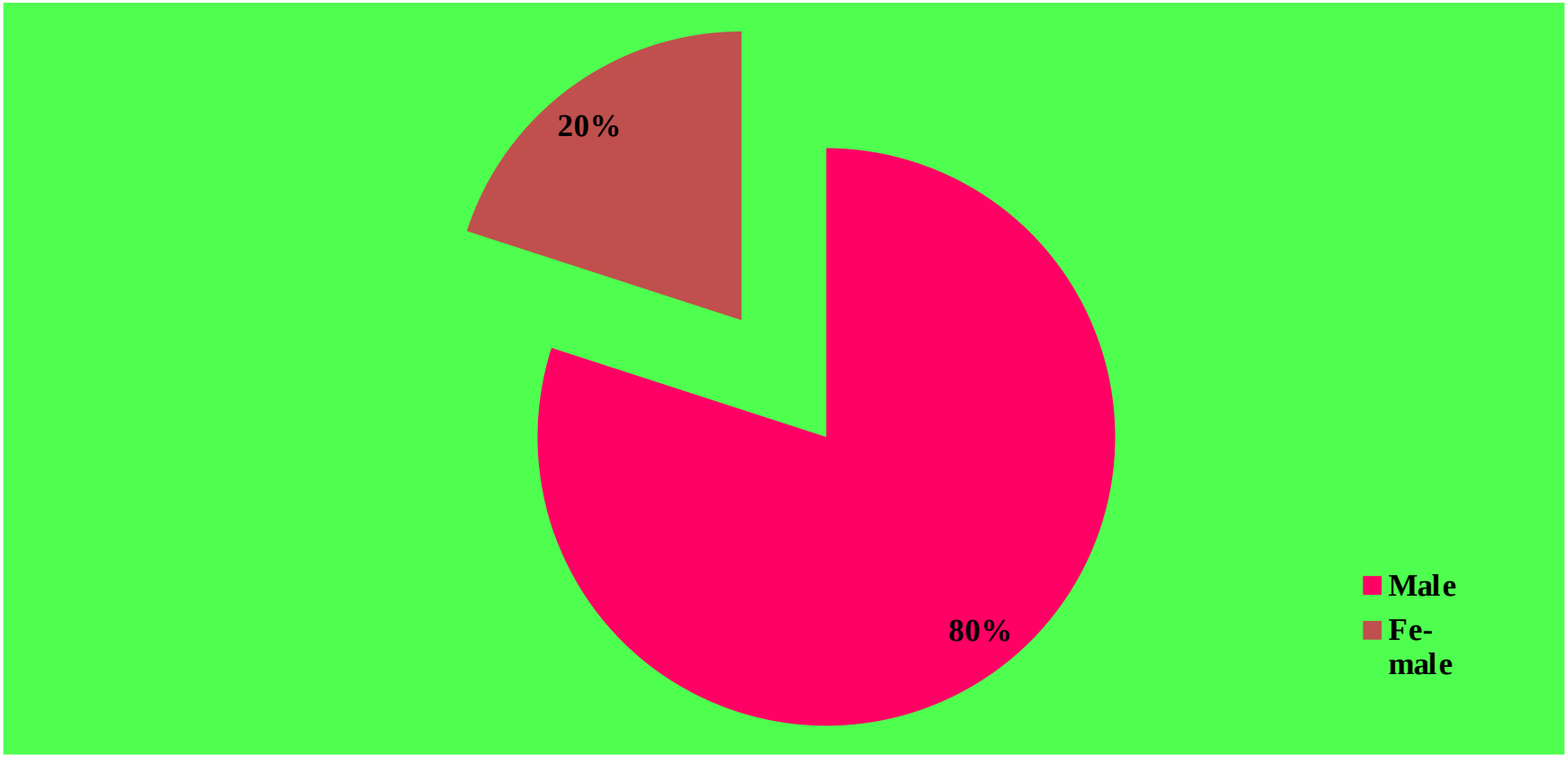

FIG 4.3b: PERCENTAGE AND DISTRIBUTION OF CHILDREN WITH ATTENTION DEFICIT HYPERACTIVE DISORDER BASED ON GENDER

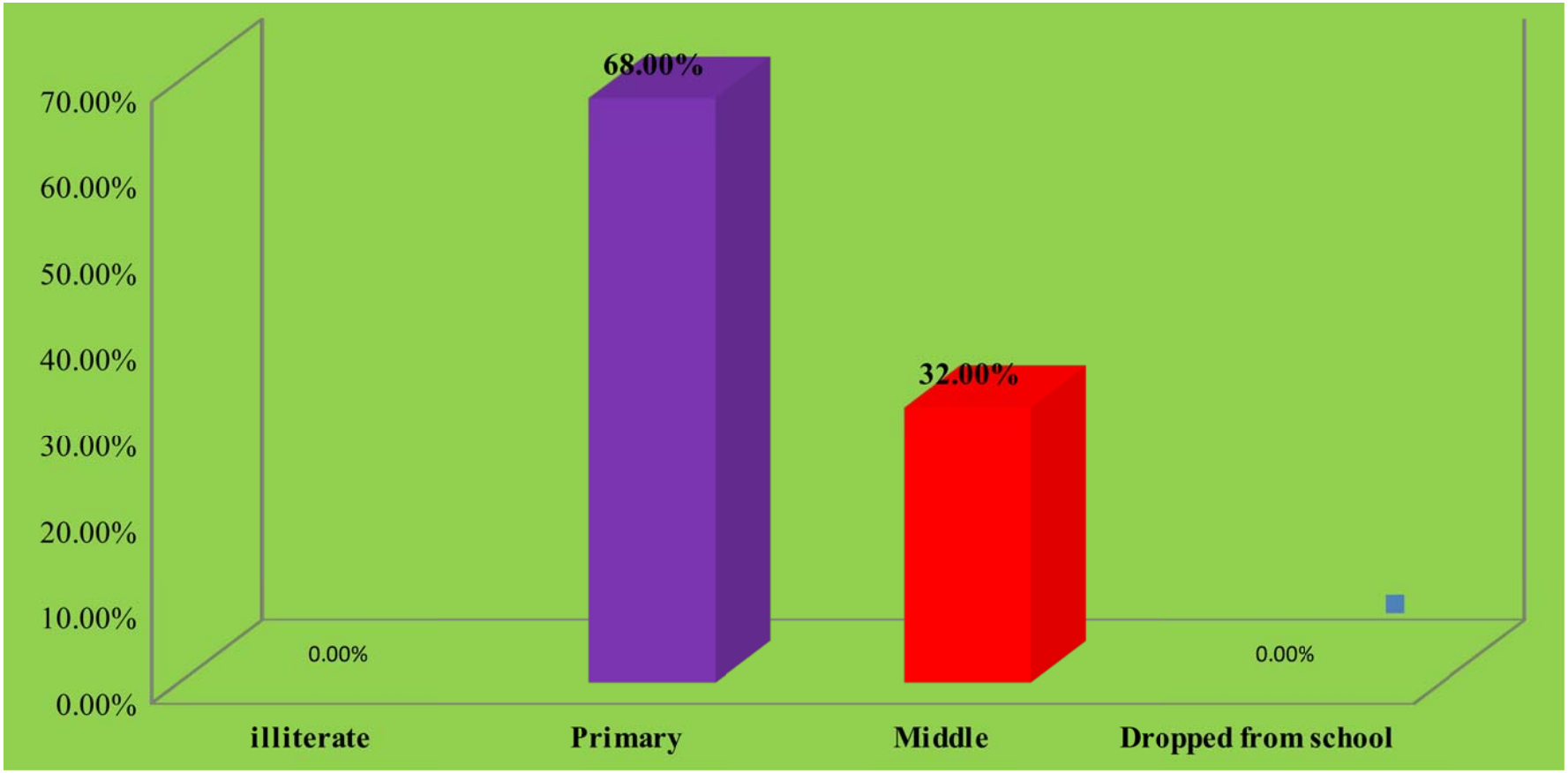
70.00%
60.00%
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
68.00%
32.00%
0.00%
0.00%
illiterate
Primary
Middle
Dropped from school

FIG 4.3C: PERCENTAGE AND DISTRIBUTION OF CHILDREN WITH ATTENTION DEFICIT HYPERACTIVE DISORDER BASED ON EDUCATIONAL STATUS

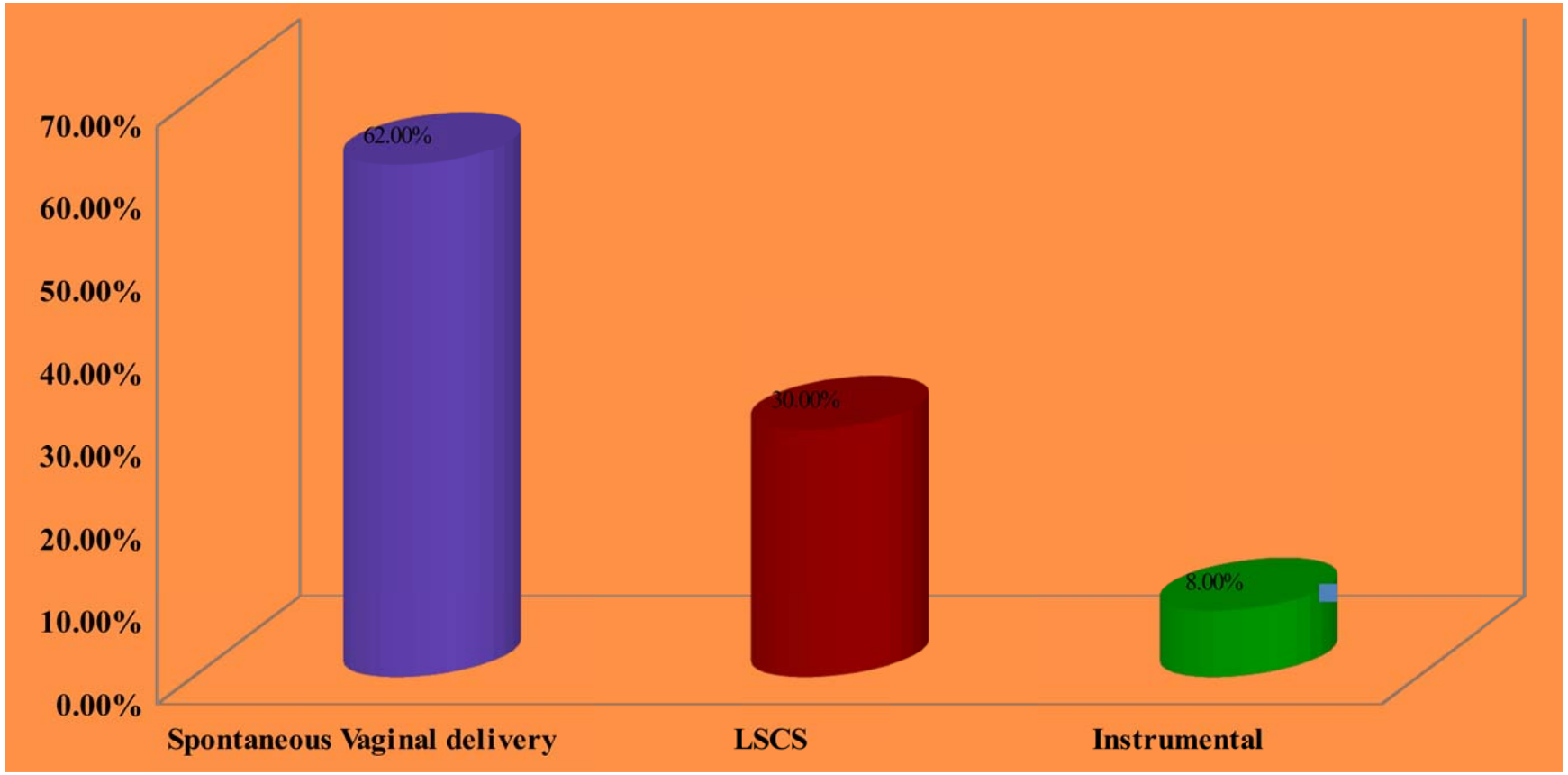

FIG 4.3G: PERCENTAGE AND DISTRIBUTION OF CHILDREN WITH ATTENTION DEFICIT HYPERCTIVE DISORDER BASED ON THE MODE OF DELIVERY

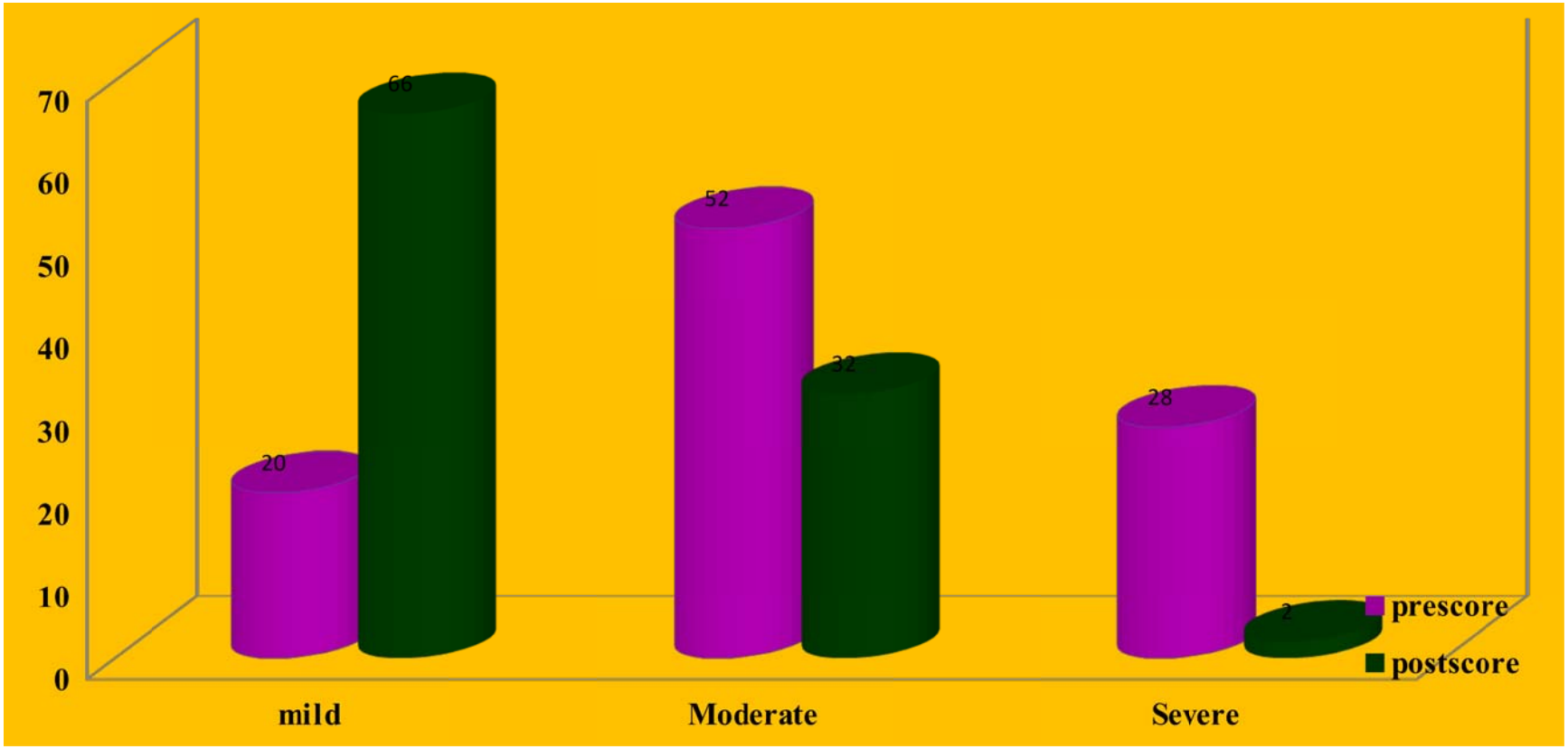

FIG 4.4 PRE-TEST AND POST-TEST COMPARISON OF BEHAVIOURAL STATUS OF THE CHILDREN WITH ATTENTION DEFICIT HYPERACTIVE DISORDER

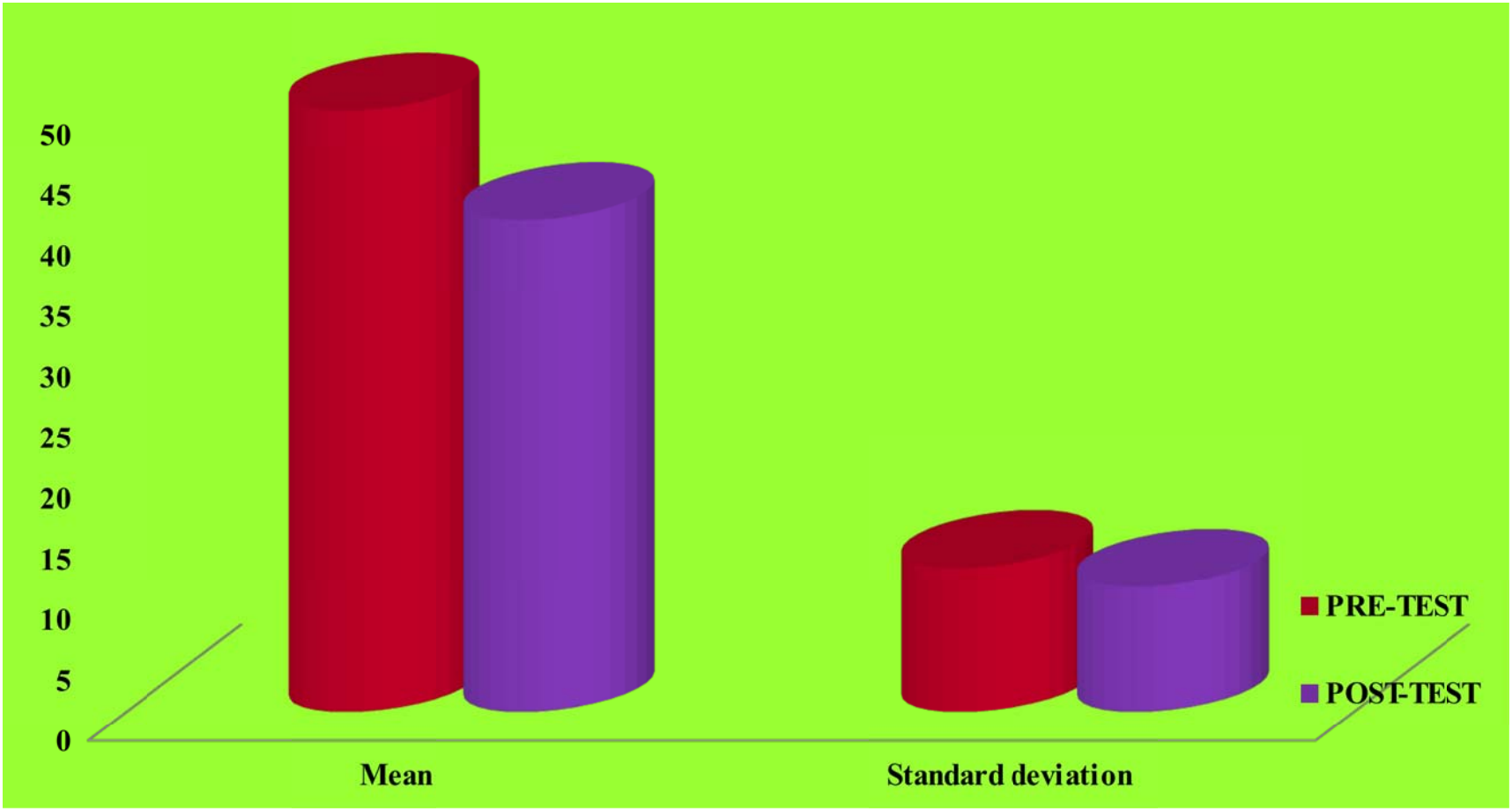

FIG 4.5: COMPARISON OF MEAN AND STANDARD DEVIATION FOR PRE-TEST AND POST-TEST

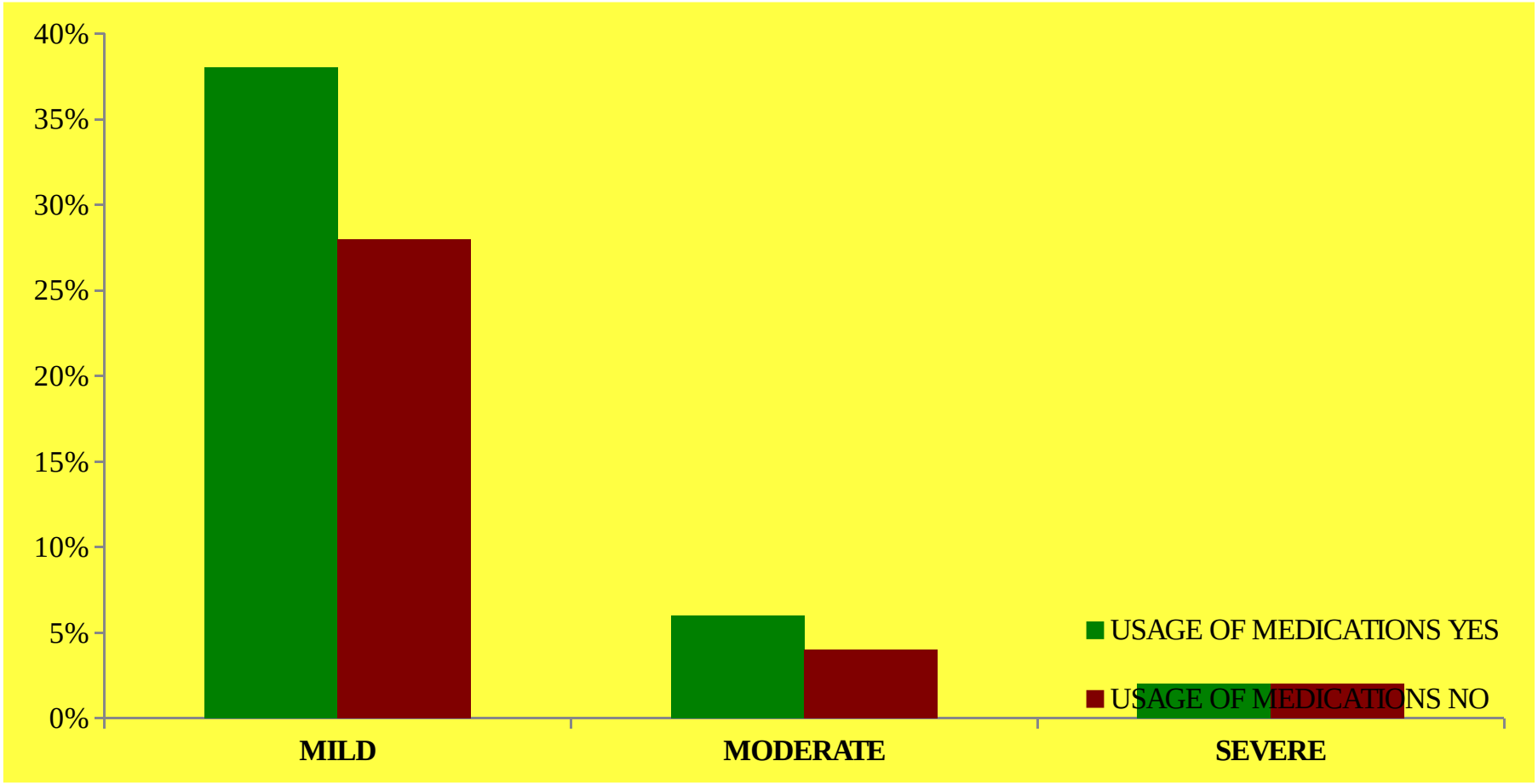
40%
35%
30%
25%
20%
15%
10%
5%
0%
MILD
MODERATE
SEVERE
USAGE OF MEDICATIONS YES
USAGE OF MEDICATIONS NO

FIG 4.7: ASSOCIATES THE USE OF MEDICATION WITH EFFECTIVENESS OF SELECTIVE NURSING MEASURES AMONG CHILDREN WITH ATTENTION DEFICIT HYPERACTIVE DISORDER

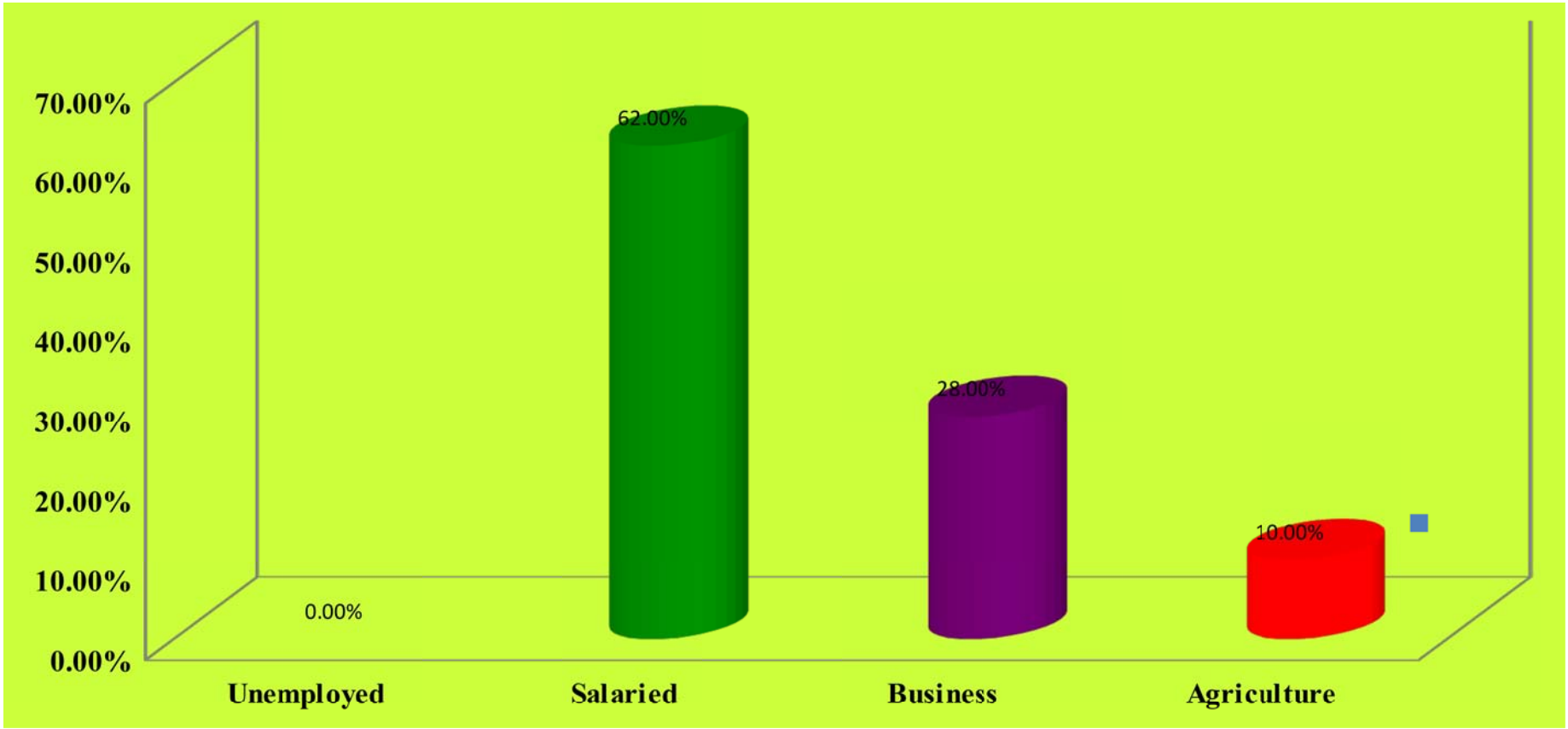

FIG4.3D: FREQUENCY AND DISTRIBUTION AMONG CHILDREN WITH ATTENTION DEFICIT HYPERACTIVE

DISORDER BASED ON OCCUPATION OF THE FATHER

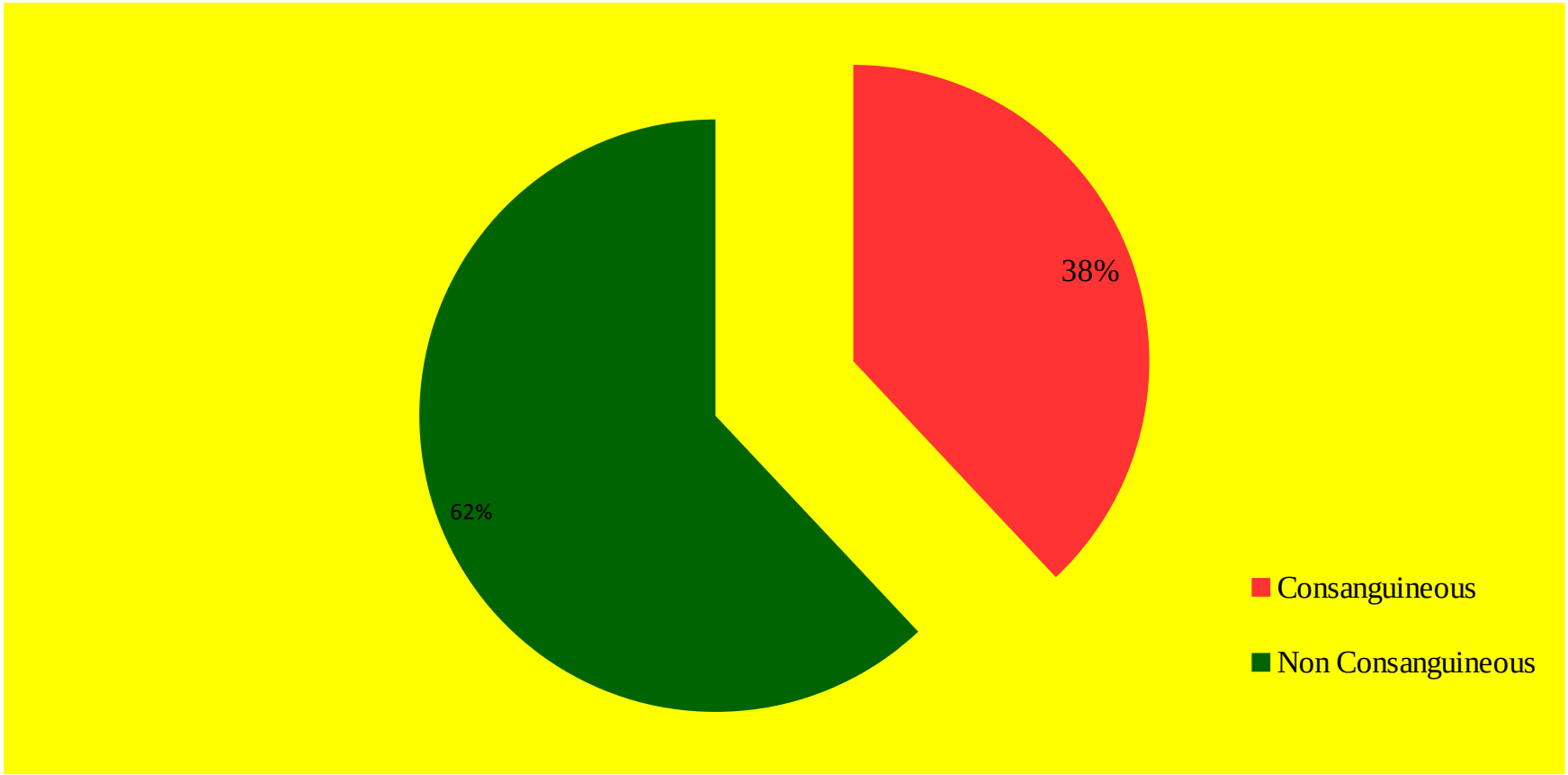
38%
62%
Consanguineous
Non Consanguineous

FIG4.3 E: PERCENTAGE AND DISTRIBUTION OF CHILDREN WITH ATTENTION DEFICIT HYPERACTIVE DISORDER BASED ON THE TYPE OF MARRIAGE

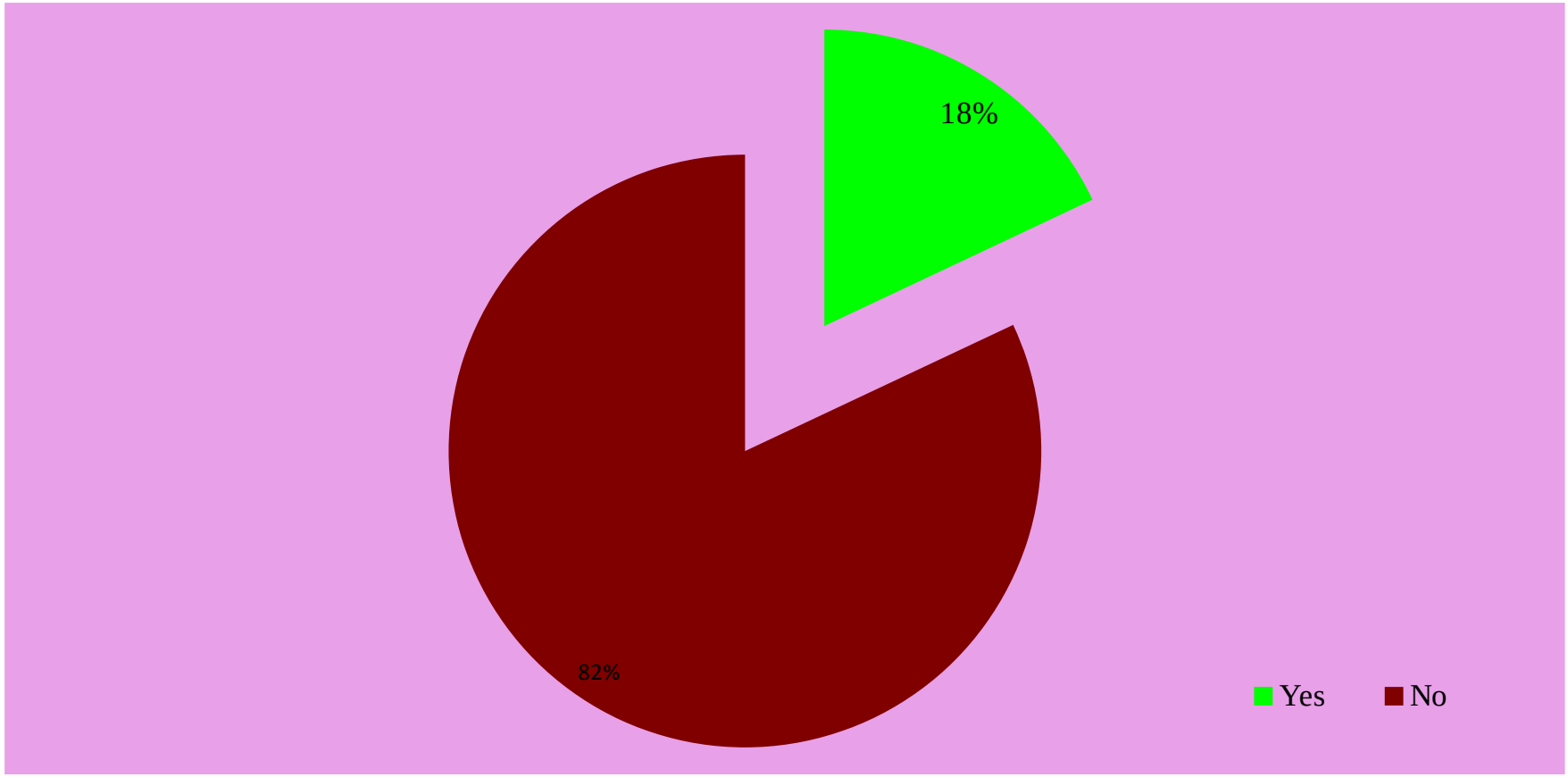
18%
82%
Yes
No

FIG4.3F: PERCENTAGE AND DISTRIBUTION OF CHILDREN WITH ATTENTION DEFICIT HYPERACTIVE DISORDER BASED ON THE HISTORY OF ILLNESS DURING ANTENATAL PERIOD

SCHOLAR ASSISTING WITH MOTOR ACTIVITIES

SCHOLAR GIVING HEALTH EDUCATION TO PARENTS

SCHOLAR ASSISTING WITH CHILD IN SENSORY INTEGRATION THERAPY

SCHOLAR TEACHING DEEP BREATHING EXERCISE

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CHAPTER II

REVIEW OF LITERATURE

CHAPTER III

METHODOLOGY

CHAPTER IV

DATA ANALYSIS AND INTERPRETATION

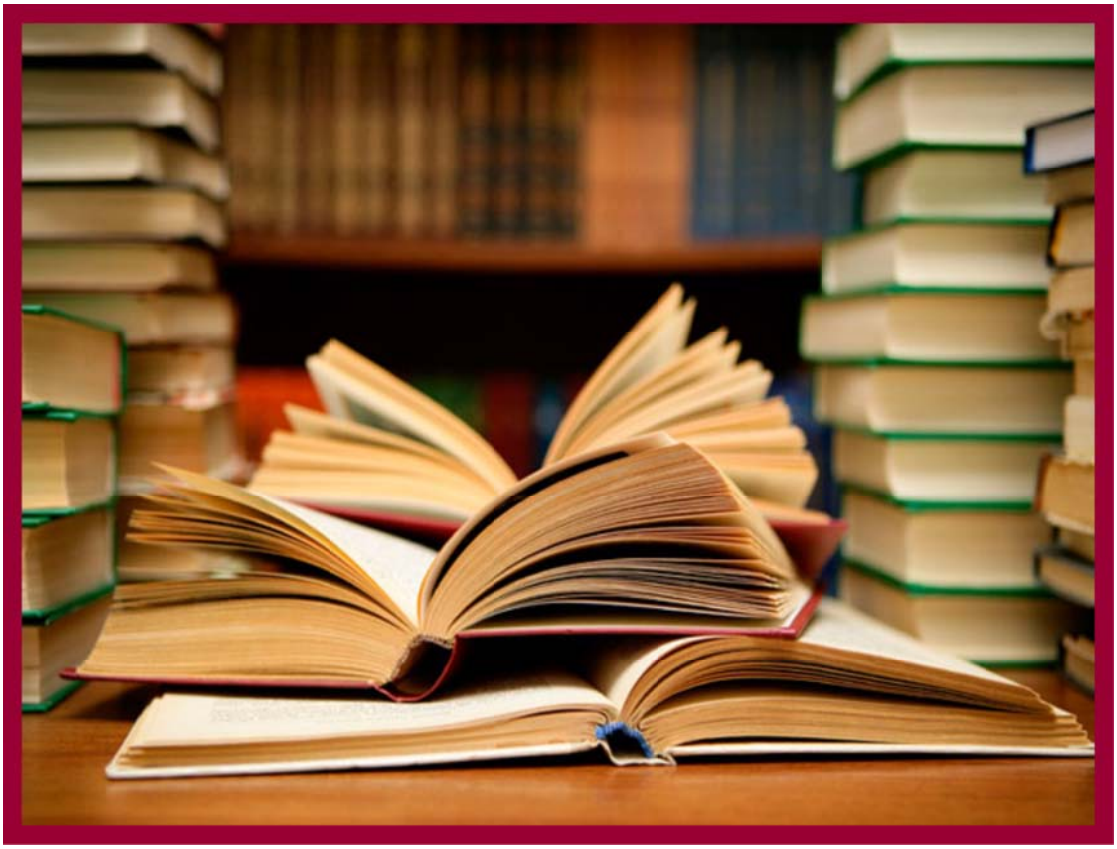
CHAPTER V

RESULTS AND DISCUSSION

CHAPTER VI

SUMMARY AND CONCLUSION

BIBILIOGRAPHY



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